Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Local Division Munich

HEADNOTES:

1. For a sufficient degree of certainty with regard to the validity of a patent for the court in the scope of an order for provisional measures (Art. 62 UPCA) a preponderant likelihood is necessary, but also sufficient.

2. In order to determine a possibly unreasonable delay in seeking provisional measures (Art. 62 UPCA), it must first be asked when the claimant became aware of the (imminent) patent infringement; based on this, the point in time from which the request for provisional measures due to the infringement of the asserted unitary patent was possible before the UPC must be identified.

3. The enforcement of a European Patent without unitary effect, which must be carried out separately in all member states, is therefore not an equivalent means of enforcing rights in the case of infringement compared to the enforcement of a unitary patent before the UPC.

Decision and orders of
the Court of First Instance of the Unified Patent Court
in the proceedings for granting of provisional measures
concerning EP 4 108 782
Proceedings No. UPC CFI 2/2023
issued on: 19 September 2023

Date of receipt of the request: 01 June 2023

NanoString Technologies Inc. (Defendant) – 530 Fairview Ave N – 98109 – Seattle (WA) – US	Written procedure served on 15 June 2023
NanoString Technologies Germany GmbH (Defendant) – Birketweg 31 – 80639 – Munich – DE	Written procedure served on 20 June 2023
NanoString Technologies Netherlands B.V. (Defendant) – Paasheuvelweg 25 – 1105BP – Amsterdam – NL	Written procedure served on 20 June 2023

CLAIMANT

1)	**10x Genomics, Inc**. (Claimant) – 6230 Stoneridge Mall Road – 94588-3260 – Pleasanton – US	Represented by: Tilman Müller-Stoy
2)	**President and Fellows of Harvard College** (Claimant) – Suit 727E, 1350 Massachussetts Avenue – 02138 – Massachusetts – US	Represented by: Tilman Müller-Stoy

DEFENDANT

1)	**NanoString Technologies Inc**. (Defendant) – 530 Fairview Ave N – 98109 – Seattle (WA) – US	Represented by: Oliver Jan Jüngst

2)	**NanoString Technologies Germany** GmbH (Defendant) – Birketweg 31 – 80639 – Munich – DE	Represented by: Oliver Jan Jüngst
3)	**NanoString Technologies Netherlands B.V**. (Defendant) – Paasheuvelweg 25 – 1105BP – Amsterdam – NL	Represented by: Oliver Jan Jüngst

PATENT AT ISSUE

Patent no.	*Patent proprietor*
EP4108782	**President and Fellows of Harvard College**

DECIDING JUDGES

COMPOSITION OF THE PANEL – FULL COMPOSITION

Presiding judge	**Matthias Zigann**
Judge-rapporteur	**Tobias Pichlmaier**
Legally qualified judge	**András Kupecz**
Technically qualified judge	**Eric Enderlin**

LANGUAGE OF THE CASE: German

ORAL HEARING OF: 05 September 2023 and 06 September 2023

DECISION ISSUED ON: 19 September 2023

Facts and submissions of the parties

On 1 June 2023, the Claimants filed a request for provisional measures with the Unified Patent Court (Munich Local Division), alleging direct and indirect infringement of the unitary patent EP 4 108 782 (patent at issue) by the Defendants.

The patent at issue was filed under the title

"Compositions and methods for analyte detection"

on 27 April 2022. On 21 April 2023, Claimant 2) filed a request with the EPO for deferment of the decision on grant of the patent at issue in view of the forthcoming introduction of the unitary patent. The unitary effect of the patent at issue was requested at the European Patent Office on 9 May 2023. On 11 May 2023, the patent at issue was granted. The publication of the mention of grant is dated 7 June 2023. Claim 1 of the patent at issue reads:

> A method for detecting a plurality of analytes in a cell or tissue sample, comprising:
>
> (a) mounting the cell or tissue sample on a solid support;
>
> (b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;
>
> (c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein each subpopulation of the plurality of detection reagents targets a different analyte, wherein each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes and one or a plurality of pre-determined subsequences, wherein the probe reagent and the one or the plurality of pre-determined subsequences are conjugated together;
>
> (d) detecting in a temporally-sequential manner the one or the plurality of pre-determined subsequences, wherein the detecting comprises:
>
> (i) hybridizing a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridization of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the one or the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample.

The patent at issue is a divisional application for EP 18173059.9, which is itself a divisional application for EP 12860433.7. The parent application is an international application dated 21 December 2012 (PCT/US2012/071398) claiming priority from 22 December 2011 (US 201161579265 P). With regard to the German part of the parent patent, a revocation action with reference 3 Ni 20/22 (EP) is pending before the German Federal Patent Court (BPatG). In its qualified note dated 7 February 2023, the 3rd Board of the BPatG sets out its preliminary view according to which the parent patent is valid to the extent of auxiliary request 1.

The research underlying the patent family was also financed with public funds from the US National Institutes of Health (NIH). This funding results in Claimant 2) having contractual obligations towards the NIH, the specific scope of which is subject to differing opinions between the parties to the present injunction proceedings.

The Claimants were successful in their cease-and-desist action against Defendants 1) and 2) under the German part of the parent patent, this being before the Munich I Regional Court under reference numbers 7 O 2693/22 and 7 O 5812/22. The judgements are dated 17 May 2023.

Defendant 1) filed an opposition against the grant of the patent at issue with the EPO on 18 July 2023.

Claimant 2) is registered as proprietor of the patent at issue. It has granted Claimant 1) an exclusive licence to the patent at issue for the territory of the Federal Republic of

Germany with effect from 14 February 2023 and an exclusive licence to the patent at issue for the territory of the other UPC member states with effect from 30 May 2023. The parties to these injunction proceedings have different views on whether these licences are legally valid.

Defendant 1) is an American company. It is the parent company of a group of companies operating under the name "NanoString". Defendant 2) is the German sales and marketing company in this group of companies. Defendant 3) is the European headquarters of the group.

In addition to the analysis systems "nCounter® Analysis System", "GeoMx® Digital Spatial Profiler" (DSP) and "Spatial Molecular Imager" (SMI), the Defendants offer the disputed product "CosMx Spatial Molecular Imager", abbreviated to "CosMx SMI" (hereinafter referred to as "**contested embodiment 1**").

Contested embodiment 1 enables highly sensitive, subcellular imaging of a variety of RNAs or proteins directly from individual cells in morphologically intact tissue samples. Contested embodiment 1 allows samples, in particular biological samples such as fixed cells and tissue sections, to be automatically analysed for the presence of certain analytes, namely RNA and proteins. According to the Defendants' submission, the product has been available on the market since December 2022. It is also used in the so-called CX lab of the Defendants in Amsterdam. This is evident from the presentation of the CX lab on the website https://nanostring.com/about-us/cx-labs/cxlab-amsterdam/; the section "Platforms Designed to Accelerate Sample to Discovery", names the products available in the laboratory in Amsterdam, including the contested embodiment 1.

Contested embodiment 2 is a detection reagent. It can be used only for the detection of RNA. Contested embodiment 2 is sold in a kit as a so-called "CosMx RNA Panel" in a standard variant ("off-the-shelf RNA Add-On") as well as according to customer specifications ("Custom RNA Add-On Probes").

Contested embodiment 3 is a probe that binds as a secondary probe to the primary probe that has already bound to its analyte (RNA or protein); contested embodiment 3 is marketed in so-called "CosMx RNA Imaging Trays". These products are available for the detection of 100 RNAs (100-plex) or 1000 RNAs (1000-plex), each for 2 or 4

slides. Contested embodiment 3 can be used for the detection of RNA as well as for the detection of proteins.

The contested embodiments are also offered in combination. They have been supplied to the Max Delbrück Center in Berlin, for example, which offers available services and technologies under the name Nanostring-CosMx.

The Defendants undertook a promotional tour of Europe with regard to the contested embodiments in the second half of April 2023 (European Summit, Annex BP 18, and also events in Hanover and Würzburg). The Defendants are holding numerous other events at research institutions to demonstrate the contested embodiments and also have other such events planned for the coming weeks and months (event announcements as Annexes BP 19 to BP 19c).

The Defendant side has repeatedly requested Claimant 2) to put forward a licence offer on appropriate terms with regard to the patent at issue.

The Claimants filed an infringement action with the UPC (Munich Local Division) for infringement of the patent at issue on 31 August 2023.

The Claimants claim that the "CosMx Spatial Molecular Imager" (and similar models) offered and used by the Defendants and also used by their customers and the associated detection reagents and decoder probes are devices for carrying out the method protected by the patent at issue.

The Claimants describe the core of the invention according to the patent at issue as taking a fundamentally different approach compared to the prior art. While the prior art methods for in situ analysis combined fluorophores to increase the number of detectable analytes, in the case of the invention according to the patent at issue a probe is not directly labelled with a fluorophore; rather, a nucleic acid sequence (so-called pre-determined subsequence) was attached to the probe.

Claimant 2), as the registered proprietor of the patent at issue, was entitled to file a request. The entry in the register was also decisive. Irrespective of this, Claimant 2) had fulfilled all legal requirements in connection with the invention at issue here. This applied in particular to the requirements arising from the Bayh-Dole Act. Claimant 2) had disclosed the invention to the NIH in due time, had claimed the right to the invention in accordance with the guidelines of the Bayh-Dole Act and had filed a patent application for the invention. To date, the NIH does not appear to have raised any objections. This was proven by the affidavit of Ms Karen Sinclair, Director of Intellectual Property at Claimant 2).

With regard to the fact that contested embodiment 2 (detection reagents) can be used only in the context of the detection of RNA, whereas contested embodiments 1 and 3 can be used both in the context of the detection of RNA and in the context of the detection of proteins, the Claimants request an unlimited prohibition only with regard to the offering and carrying out of the patent-infringing process (request point A.I.) and the offering and supply of contested embodiment 2 (request point A.III.).

With regard to offering and supplying contested embodiments 1 and 3, the Claimants only request the affixing of a warning relating to the patent at issue and the obligation of the Defendants to conclude a cease-and-desist agreement with their customers, subject to a contractual penalty, with regard to the use of contested embodiments 1 and 3 for the detection of RNA (request points A.II. and A.IV.).

For the request for an order dated 1 June 2023 the Claimants choose a wording corresponding word-for-word to claim 1 of the patent at issue and refers spatially "to the participating member states". On the basis of the submission in the opposition of 21 July 2023, the Claimants adapted their request so that the contracting states of the UPCA were mentioned by name in the request and the phrase "one or" was deleted before "a plurality of pre-determined subsequences".

At the oral proceedings on 5 September 2023, the Local Division pointed out that the question of the validity of the patent at issue (validity) was open after the preliminary deliberations and therefore had to be discussed with the parties; in this context, the Local Division also drew attention to the fact that in the parallel proceedings concerning the parent patent (UPC_CFI_17/2023), the requests for an order were filed in a version that restricted the claim of the parent patent. Taking up this indication, the Claimants supplemented their main request with an auxiliary request. At the oral proceedings, the Local Division further pointed out that the indication "in font size 12" in the requests for injunctions II and IV could be unclear, since it does not specify which typeface it relates to; the Claimants consequently deleted this passage in each case. The Local Division also pointed out at the oral hearing that the competence of the Munich Local Division of the UPC to determine the appropriateness of the contractual penalties mentioned in the requests for orders II and IV could be questionable; the Claimants then replaced the phrase "Munich Local Division" with "competent court". With regard to the naming of Claimant 2) in the requests for orders II and IV (there respectively (1) and (2)), the Claimants stated that this had been agreed between the Claimants.

Accordingly, the most recent **requests from the Claimants** are:

A. The Defendants shall be ordered to cease and desist from and to set aside, in the territories of the Republic of Austria, the Kingdom of Belgium, the Republic of Bulgaria, the Kingdom of Denmark, the Republic of Estonia, the Republic of Finland, the French Republic, the Federal Republic of Germany, the Italian Republic, the Republic of Latvia, the Republic of Lithuania, the Grand Duchy of Luxembourg, the Republic of Malta, the Kingdom of the Netherlands, the Portuguese Republic, the Republic of Slovenia and/or the Kingdom of Sweden

I. using, in the territory of one or more of the States mentioned in A., or offering for use in the territory of one or more of the States mentioned in A.:

a method for detecting a plurality of analytes in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample;

(direct infringement of claim 1 of EP 4 108 782)

II. offering and/or supplying, in the territory of one of the States mentioned in A, for the purpose of making use of the method in the territory of one of the States referred to in A. or in the territories of several of these States for application in the territory of one or more of the States referred to in A.:

devices suitable for carrying out a method for detecting a plurality of RNAs in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection

reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the plurality of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent

to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample,

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the devices may not be used for the detection of RNA in a procedure pursuant to section A.I. without the consent of Claimant 2) as proprietor of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the devices for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each contravention;

(indirect infringement of claim 1 of EP 4 108 782)

III. offering and/or supplying, in the territory of one of the States mentioned in A, for the purpose of making use of the method in the territory of one of the States referred to in A. or in the territories of several of these States for application in the territory of one or more of the States referred to in A.:

detection reagents suitable for carrying out a method for detecting a plurality of analytes in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample;

(indirect infringement of claim 1 of EP 4 108 782)

IV. offering and/or supplying, in the territory of one of the States mentioned in A, for the purpose of making use of the method in the territory of one of the States referred to in A. or in the territories of several of these States in the territory of one or more of the States referred to in A.:

decoder probes suitable for carrying out a method for detecting a plurality of RNAs in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the plurality of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each

subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample;

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the decoder probes may not be used for the detection of RNA in a procedure pursuant to section A.I. without the consent of Claimant 2) as proprietor of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the decoder probes for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each contravention;

(indirect infringement of claim 1 of EP 4 108 782)

auxiliary to A.I. to A.IV.:

Aa. The Defendants shall be ordered to cease and desist from and to set aside, in the territories of the Republic of Austria, the Kingdom of Belgium, the Republic of Bulgaria, the Kingdom of Denmark, the Republic of Estonia, the Republic of Finland, the French Republic, the Federal Republic of Germany, the Italian Republic, the Republic of Latvia, the Republic of Lithuania, the Grand Duchy of Luxembourg, the Republic of Malta, the Kingdom of the Netherlands, the Portuguese Republic, the Republic of Slovenia and/or the Kingdom of Sweden,

Ia. using, in the territory of one or more of the States mentioned in Aa., or offering for use in the territory of one or more of the States mentioned in Aa.:

a method for detecting a plurality of analytes in a cell or tissue sample, which is used in (i) immunohistochemistry and/or fluorescence in situ hybridisation, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample; wherein

the analytes are selected from the group consisting of proteins, peptides and nucleic acids, wherein the nucleic acids are selected from the group consisting of cellular RNA, messenger RNA, microRNA, ribosomal RNA, and any combinations thereof

(direct infringement of claim 1 of EP 4 108 782)

IIa. offering and/or supplying, in the territory of one of the States mentioned in Aa., for the purpose of making use of the method in the territory of one of the States referred to in Aa. or in the territories of several of these States for application in the territory of one or more of the States referred to in Aa.:

devices suitable for carrying out a method for detecting a plurality of RNAs in a cell or tissue sample, which is used in (i) immunohistochemistry and/or fluorescence in situ hybridisation, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the plurality of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each

subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample; wherein

the analytes are selected from the group consisting of proteins, peptides and nucleic acids, wherein the nucleic acids are selected from the group consisting of cellular RNA, messenger RNA, microRNA, ribosomal RNA, and any combinations thereof

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the devices may not be used for the detection of RNA in a procedure pursuant to section A.Ia. without the consent of Claimant 2) as proprietor of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the devices for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each contravention;

(indirect infringement of claim 1 of EP 4 108 782)

IIIa. offering and/or supplying, in the territory of one of the States mentioned in Aa., for the purpose of making use of the method in the territory of one of the States referred to in Aa. or in the territories of several of these States for application in the territory of one or more of the States referred to in Aa.:

detection reagents suitable for carrying out a method for detecting a plurality of analytes in a cell or tissue sample, which is used in (i) immunohistochemistry and/or fluorescence in situ hybridisation, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample; wherein the analytes are selected from the group consisting of proteins, peptides and nucleic acids, wherein the nucleic acids are selected from the group consisting of cellular RNA, messenger RNA, microRNA, ribosomal RNA, and any combinations thereof

(indirect infringement of claim 1 of EP 4 108 782)

IVa. offering and/or supplying, in the territory of one of the States mentioned in Aa., for the purpose of making use of the method in the territory of one of the States referred to in Aa.. or in the territories of several of these States for application in the territory of one or more of the States referred to in Aa.:

decoder probes suitable for carrying out a method for detecting a plurality of RNAs in a cell or tissue sample, which is used in (i) immunohistochemistry and/or fluorescence in situ hybridisation, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, wherein the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the plurality of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridisation of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample; wherein

the analytes are selected from the group consisting of proteins, peptides and nucleic acids, wherein the nucleic acids are selected from the group consisting of cellular RNA, messenger RNA, microRNA, ribosomal RNA, and any combinations thereof

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the decoder probes may not be used for the detection of RNA in a procedure pursuant to section A.Ia. without the consent of Claimant 2) as proprietor of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the decoder probes for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each contravention;

(indirect infringement of claim 1 of EP 4 108 782)

B. For each contravention of the Orders requested in A.I. to A.IV. the respective Defendant shall pay to the Court a penalty payment (repeated if necessary) of up to EUR 250 000 per contravention (R. 354.3 RoP).

C. That the Defendants be ordered to bear the costs for these proceedings.

D. That this order be immediately enforceable.

The Defendants have requested:

1. The request for provisional measures dated 1 June 2023, as amended on 5 September 2023, and the auxiliary request dated 5 September 2023, shall be dismissed as inadmissible and/or in any event unfounded;

- as an auxiliary request -

1.1. The Defendants shall be permitted to continue the alleged infringing acts against the provision of a security, the amount of which is left to the discretion of the Court, but should not exceed € 1 000 000;

- as an ultimate auxiliary request -

1.2. The granting of provisional measures shall be made conditional on the provision by the Claimants of a security, the amount of which is to be determined by the Court but should not be less than € 20 000 000.

2. The costs of the proceedings shall be imposed on the Claimants.

3. This order shall be immediately enforceable.

The Defendants filed a protective letter dated 2 June 2023. They further presented their opposition to the request with date 21 July 2023 and to the Claimants' Reply dated 11 August 2023 by pleading dated 24 August 2023.

- The Defendants claim that the **Munich Local Division of the UPC lacks competence.**

  Since two first-instance judgements of the Regional Court Munich I (file numbers 7 O 5812/22 and 7 O 2693/22) were issued and enforced in Germany prior to the filing of the request here, at least the challenge against Defendant 2) was manifestly unfounded, since there was no conclusive demonstration of relevant instances of infringement in Germany, following the observance of the prohibition pronounced by the Regional Court Munich I. The contested method has not been carried out in Germany by the Defendants. There was therefore no relevant reference to Germany.

  Since the request was manifestly unfounded with regard to Germany and Claimant 2), the Division seized also lacks competence; a manifestly unfounded request against a party – who was clearly not carrying out any infringing act – only in order to be able to pursue local competence via Article 33(b) UPCA with several Defendants by way of "forum shopping", as it were, was not worthy of protection and not within the spirit of the law.

- The Defendants consider the **request** for provisional measures to be **inadmissible**.

  The request did not comply with the mandatory procedural requirements of the Rules of Procedure of the Unified Patent Court, as it did not contain the information required under Rule 206(2)(a), (c), (d) and (e) RoP. In particular, the Claimant side had not provided evidence that it was entitled to institute the proceedings. Contrary to Rule 206(2)(d) RoP, the Claimant side provided their submissions with regard to validity only with the Reply.

  Furthermore, the fact that a possible claim on the merits was ultimately only announced in a non-committal manner in the Reply of 11 August 2023 is insufficient with regard to the requirements governing the request under Rule

206(2)(e) RoP. Also, the mere announcement of a claim on the merits does not constitute the "brief description" of the claim on the merits that is required by the Rules of Procedure.

- The Defendants object to the **lack of standing (entitlement to file a request) of the Claimants.**

  Since the patent at issue was part of a patent family whose underlying research had been financed to a very considerable extent using public funds from the US National Institutes of Health (NIH), certain legal requirements had to be met.

  Claimant 2) had failed to comply with certain requirements of the so-called Bayh-Dole Act, namely Article 35 USC 2002 (c); for that reason, the rights to the invention should have passed to the US Government.

  The US funding had been conditional on the granting of non-exclusive licences to third parties for the resulting technologies and innovations – also with regard to the UPC states. Consequently, the granting of an exclusive licence to Claimant 1) was in any case excluded. However, Claimant 1) had also not been granted a simple licence with legal effect, since the agreements submitted with Annex PB 1 were not valid under the relevant German law (Article 7(3) of Regulation (EU) 1257/2012 in conjunction with Article 6(1) EPC). An exclusive licence having been agreed between the two Claimants in collusion between the contracting parties and in breach of the NIH's conditions of grant, the patent should be revoked; this view was also confirmed by the judgement of the Regional Court of Munich I (Case No. 7 O 2693/22).

- The Defendants are of the opinion that the **patent at issue is not valid.**

  The validity of the patent at issue could not be presumed on the basis of its grant. This follows from the fact that the patent was granted without reasonable examination – as is evident from the EPO file: less than one year passed from the filing of the divisional application on 27 April 2022 to the issuing of the intention to grant on 6 April 2023, meaning that the patent had obviously not been examined intensively; particularly relevant prior art (D6, D8, D12, D13, D27) had not been seen; novelty and inventive step were dealt with in just two sentences

in the EPO's opinion. Furthermore, the Claimants claimed a limited – and thus in every respect unexamined – version of the patent. Logically, therefore, there could be no "presumption" of this.

The subject matter of claim 1 of the patent at issue was not directly and unambiguously disclosed in the original application documents of the previous applications (for the parent patent and EP ‘063) and was thus inadmissibly extended. There was also a lack of novelty of inventive step. The patent at issue also did not disclose the invention so clearly and completely that it could be executed by a person skilled in the art.

- On the one hand, the **inadmissible extension** related to the repetition of step (ii), which was not specifically required in the wording of the claim. On the other hand, the original application documents had included a repetition of step (ii). Thus, the repetition of only the hybridisation and signal removal steps (i) and (iii), without step (ii) as per the claim, was not directly and unambiguously disclosed in the previous applications. Claim 1 therefore went beyond the content of the original application, in violation of Article 76(1) EPC.

  In the parent patent application, the temporal order *actively* identified the detection reagents, whereas in claim 1 of the patent at issue the sequence was used *passively* ("using the temporal order of the signal signatures […] to identify a subpopulation of the detection reagents"). The latter wording was broader, as it potentially included the possibility that while the temporal order of the signal signatures was used in some way in the identification process, other components or steps might also be involved (and necessary) in the identification.

- The Defendants also invoke a **lack of novelty** of the claimed process.

  - The article by *Göransson et al.* (D6), which was not considered in the examination procedure, disclosed the claimed subject matter by the detection method for amplified single molecules (ASM) used for this purpose. In *Göransson,* specific sections of the genomic DNA, i.e. a multitude of analytes, would be detected (via ASM) in one sample.

According to the description of the patent at issue, the term "cell or tissue sample" encompassed both non-intact and pre-treated or prepared samples; this pre-treatment could therefore also include the isolation of genomic DNA. It would be obvious to a person skilled in the art that the generic decoding scheme of Göransson et al. (D6) works completely independently of what kind of analyte one wants to detect. For the details of the submission, reference is made to the statements of the Defendants in the opposition (paragraphs 304 to 377) and the Rejoinder (paragraphs 139 to 158).

- However, the claimed method was also not novel in light of US 2010/0151472 (D12) published on 17 June 2010. For the details of the submission, reference is made to the statements of the Defendants in the opposition (paragraphs 378 to 448) and the Rejoinder (paragraphs 182 to 189).

- With regard to the claimed method, the Defendants also claim that it is not based on an **inventive step.** In this respect, the Defendants named the following publications as relevant prior art:

  - *Duose et al. 2010* (D8); for the details of the submission, including the asserted combination (D8/D6), reference is made to the Defendants' submissions in the opposition (paragraphs 456 to 569) and in the reply (paragraphs 159 to 175).

  - *Duose et al. 2011* (D27); for the details of the submission, including the asserted combination (D27 in combination with D6 and/or D8), reference is made to the Defendants' submissions in the opposition (paragraphs 570 to 607) and the Rejoinder (paragraphs 176 to 181).

  - *WO 03/003810* (D23) (D6); for the details of the submission, including the asserted combination (D23 in combination with D6 and/or D8), reference is made to the Defendants' submissions in the opposition (paragraphs 608 to 633).

- *Göransson et al.* (D6); for the details of the submission, including the asserted combination (D6 in combination with D19, D13, D10, D11, D13 and D24), reference is made to the Defendants' submissions in the opposition (paragraphs 634 to 669) and the Rejoinder (paragraphs 144 to 158).

- *US 2010/0151472* (D12); for the details of the submission, including the asserted combination (D12 in combination with D6), reference is made to the Defendants' submissions in the opposition (paragraphs 670 to 672) and the Rejoinder (paragraphs 182 to 189).

- According to the Defendants, the subject matter of the claims of the patent at issue is also not disclosed so completely that a person skilled in the art could execute the invention **(insufficient disclosure**).

  - The patent does not teach how unbound detection reagents can be removed prior to the detection step, and how meaningful results can be obtained without such removal; it will not be known to a person skilled in the art, on the basis of general knowledge in the art, how the method can be carried out without a step to remove unbound detection reagent.

  - The patent does not teach how a temporal order of signal signatures is to be achieved if the detection step is not repeated together with the hybridisation and signal removal steps; but since this step is precisely not to be repeated according to the claim wording, the patent at issue is undoubtedly not executable.

  - The claimed invention could not be executed if extremely short decoder probes were used for hybridisation. The patent at issue states in paragraph [0059] that the decoder probe can be of any length. However, when a decoder probe is only a single nucleotide long, it cannot hybridise with the nucleic acid label or a pre-determined subsequence of the detection reagent; it would therefore not be possible to carry out the claimed method with decoder probes of only one nucleotide. The patent does not provide a person skilled in the art

with any instructions on how a decoder probe with only one nucleotide can nevertheless be used for detection by hybridisation.

- The patent at issue also did not contain a single example of an in situ "high-plex" detection, although the Claimant side claimed with regard to the parent patent that the claimed method enabled an (allegedly better) high-plex analysis compared to the prior art.

- The BPatG's provisional remarks on the parent patent, which the Defendants considered to be correct, also did not support the validity of the patent relevant here. Namely, the BPatG's assessment that the parent patent as granted was not valid was not challenged, which thus refutes a supposed presumption. The expected revocation of the patent at issue was impressively confirmed by an expert opinion from the Swedish Intellectual Property Office (PRV) dated 3 July 2023.

- The Defendants claim that the **patent at issue is not infringed** by the contested products.

  The contested embodiments were designed in such a way that essential steps of the method (creation of a temporal order of signal signatures, identification of the analyte) were not carried out on the device itself, but on a computer-aided system (cloud computing platform AtoMx Spatial Informatics) abroad and thus outside the scope of application of the UPCA. The request for an order was therefore already unfounded because the central step of the contested method and thus the advantage sought under the patent was carried out abroad.

  The method claimed by the patent was also not realised in technical terms. The following claim features were not realised with the method that could be carried out with the contested products:

  - each subpopulation of the plurality of detection reagents targets a different analyte;

- repeating (i) and (iii) using a different set of decoder probes in order to detect other subsequences of the detection reagents, producing a temporal order of the signal signatures;

- using the temporal order of the signal signatures corresponding to the one or the plurality of pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample.

According to the patent, a "subpopulation" of the detection reagents, each of which binds to the same analyte, must be identical at the molecular level; this also results from the description, for example [0138]. This was not the case, however, as different probe reagents would bind to the same analytes. However, the respective probe reagents would also have to be identical in order to be assigned to the same subpopulation.

According to a correct understanding of the asserted claim of the patent at issue, repetitions for the same subsequences were excluded at a conceptual level; by virtue of the term "thereby producing", there is a direct causality between the repetitions of steps (i) and (iii) for different predetermined subsequences and the generation of the temporal order of the signal signatures. The generation of the temporal order was therefore based on nothing other than the exclusive repetition of steps (i) and (iii) for other subsequences. Since this temporal order is not determined in the Defendants' method, it is also not compared with the signal signatures for a subpopulation of the detection reagents. However, the patent claim presupposes that the analytes are detected by the temporal order of the signal signatures.

- The Defendants are of the opinion that the order requested constitutes a **modification of the claim, which is not provided for in the Rules of Procedure.**

The order requests modify claim 1 of the patent at issue by deleting the phrase *"one or"* before *"a plurality of pre-determined subsequences"* and thereby limit the claim. The version of the claim thus asserted had neither been granted nor was it pending in a validity proceeding. Rule 211(2) RoP, on the other hand,

clearly requires that the patent must be valid. The RoP do not mention an option to (alternatively) assert, with the request for an order, a version of the patent claim that deviates from the granted version. The version of the claim asserted by the Claimants in the order requests was non-existent. The questionable amendment of the request wording also has consequences for the validity of the patent (novelty and inventive step; see Rejoinder paragraphs 210 to 222).

- From the point of view of the Defendants**,** there is in any case **no need to order provisional measures.**

  The requested measures were also neither urgent in terms of time nor necessary, as the Claimants had not taken action against the challenged products in the relevant jurisdictions on the basis of the parent patent since the proceedings in Germany in March 2022; the internet presence https://www.nanostring.com had been known since March 2022.

  The request filed with the EPO on 21 April 2023, for postponement of the decision on grant of the patent at issue in view of the imminent introduction of the unitary patent, must also be taken into account in the assessment of urgency, the conclusion being that the latter must be denied.

  It must also be taken into account that the Claimants are not at risk of extraordinary damage for which they could not pursue compensation by way of a claim on the merits. Rather, it is the Defendants who are at risk of massive, currently unquantifiable and, above all, irreparable economic harm as well as considerable harm to their reputation if they were forced to take the contested products off the market by way of a provisional measure. In view of the long product cycle and the considerable remaining patent term (until 31 December 2032), only a proceeding on the merits would be appropriate for this dispute.

  Another argument against ordering provisional measures was that the Defendants had an enforceable claim to a (simple) licence to the patent at issue; this was supported by the expert opinion of Professor C., one of the most renowned professors in the field of US licensing law, submitted in accordance with Rule 181(1) RoP. The Defendants were willing to pursue the licencing route

and had therefore repeatedly requested that Claimant 2) put forward a fair and reasonable licence offer, which Claimant 2) ignored. The licence claim arises:

- on the one hand, from the assertion that, according to the NIH funding conditions, a contract had been established between the NIH and Defendant 2), which was accompanied by a corresponding obligation to (simple) licencing, on which the Defendants could also rely as third party beneficiaries; the US court in Delaware had wrongly denied a licence claim established in this way, this decision was not legally binding;

- further, from the assertion that Claimant 2) breached its contractual obligations towards the NIH by

  - not granting a licence to the Defendants,

  - granting an exclusive licence to Claimant 1) in collusive breach of the conditions of the NIH funding; and

  had thus infringed US antitrust legislation and US legislation against unfair competition; the legal consequence of these infringements was a claim by the Defendants to a worldwide licence to the patent at issue. The C. opinion (German translation) states:

  > "In the event that Harvard or 10x Genomics are found to have engaged in conduct that violates U.S. antitrust or unfair competition laws or that is otherwise characterized as evidencing "unclean hands" with respect to the NIH-funded patents, NanoString is entitled to a license under those patents."

- on the basis of European antitrust legislation; the Claimants would use the patent at issue to monopolise the market, in breach of contractual agreements on funding with the NIH; therefore, in any event, a provisional order was also excluded in accordance with European antitrust legislation.

The Claimant side had withheld from the Defendant side the information that Claimant 2) had agreed to grant open, non-exclusive licences to third parties in return for the provision of the NIH funding. If, on the other hand, the Claimants

had provided these documents in good time, or had simply complied with the funding conditions and thus acted in accordance with the law, there would be no reason for the present legal dispute.

The disregard for mandatory procedural rules (Rule 206(2) RoP) and the lack of submissions in the petition, on all issues both known and foreseeable on the basis of the German parallel proceedings on the parent patent, from standing to non-infringement and validity, also demonstrate the lack of urgency (inter alia, failure to submit evidence).

- **Any order for provisional measures should only be against provision of security**

  If provisional measures were to be granted, a security deposit should be fixed for the Defendants, in order to allow the continuation of the alleged infringing act (see also Rule 206(2)(c) RoP), because the Claimants' interest was purely financial.

- **The subject matter of the proceedings is unsuitable for the ordering of provisional measures**

  The subject matter of the proceedings is obviously unsuitable for provisional measures – in particular a prohibitory injunction – not only because the patent at issue and the contested subject matter relate to a highly complex technology, but also because the questions raised relate to admissibility, competence, standing, US law as well as general questions of indirect patent infringement and validity.

- **No need for legal protection**

  Since the Claimants had the opportunity, on the basis of the judgements by Regional Court Munich I concerning the parent patent, to use the request for coercive measures to initiate proceedings to enforce their alleged rights – at least in Germany – that would have been simpler and less expensive than pursuing an alleged substantive cease-and-desist action in the context of the present proceedings, there is no need for legal protection.

- **Proportionality**

  The Defendants are of the opinion that the ordering of provisional measures – in particular a prohibitory injunction – is disproportionate, as the balancing of interests according to Article 62(2) UPCA is clearly in favour of the Defendants. Even if one were to assume that the patent was infringed and legally valid and that there was no enforceable licence claim, residual doubts in the exercise of discretion would have to lead to the rejection of the request. In this context, the irretrievable damage threatening the Defendants in the event of a ban is particularly serious; for the Defendants there is the risk of being excluded from the European market permanently, or at least for a very long time. The Claimants, on the other hand, could await the outcome of a proceeding on the merits without any financial or other business losses.

  Even if one were to confirm the competence of the Local Division, the standing, a risk of perpetration in Germany, an infringement, a sufficiently secured validity, a "necessity" and an urgency, a prohibitory injunction would remain disproportionate, as

  - in any case, it is a completely subordinate part of a larger, complex product (the contested embodiment 1 consists of 2394 individual parts and is covered by a large number of the Defendants' patents and patent applications, for example for chemical processes, but also contains specially developed fluidic and optical systems and data analysis methods; its technology goes far beyond the method of the patent at issue), for which development costs of over $93 000 000 were incurred;

  - Claimant 2), as a Non-Practicing Entity ("NPE"), had no interest at all in the enforcement of a prohibitory injunction; and

  - the disproportionate nature of a prohibitory injunction also resulted from the fact that the contested embodiments were of irreplaceable importance for research into a large number of serious, life-threatening diseases and the development of therapies against them in the UPC contracting states, as they could not be replaced by an alternative analytical method available on the market.

It should also not be disregarded that the Claimants would build up an illegal patent “thicket”: with the parent patent, as well as EP 3 425 063 and the patent at issue, there are two family members, all of which are based on the regional phase of the international application WO 2013/096851; the Claimants are thus trying use three invalid patents to enforce their formal positions obtained by grant.

The objection of disproportionality could only be sufficiently taken into account by denying a prohibitory injunction.

With regard to further details of the parties' submissions, reference is made to their written submissions and to their submissions at the oral hearing.

Reasons for the decision and orders

The Munich Local Division of the Unified Patent Court (hereinafter "UPC") has competence for deciding on the request for provisional measures at issue here. The main request is admissible and largely well-founded.

A.

I. The **Munich Local Division of** the UPC **is competent** for deciding on the request for provisional measures.

The basis for the competence of the Munich Local Division of the UPC is Article 33(1)(a) UPCA. The Claimants have filed a request under Article 32(1)(a) UPCA for provisional measures in respect of infringement of the patent at issue by the Defendants in, inter alia, Germany.

The Claimants have submitted that patent-infringing products are offered via the internet presence at the URL https://nanostring.com. This offer of immediate dispatch ("Shipping now") is made in relation to, inter alia, all Member States of the European Union, i.e. also the UPC contracting states and thus also Germany. In the "Legal" section of the website, the sales terms refer in particular to shipping to the Member States of the European Union. There it says ("Sales Terms", available at https://nanostring.com/about-us/legal/termsofsale/#sales-of-products):

> "Unless otherwise set forth in writing by NanoString or otherwise agreed by the parties, all shipments are made EXW (Incoterms 2010) NanoString's manufacturing facility, except for shipments to member countries of the European Union, the United Kingdom, and Canada, which are made DDP (Incoterms 2010) excluding VAT." (underlining by the Court)

Contrary to the Defendants' submission, this is not merely "general information", but patent-relevant offers to supply.

According to the Claimants' submission, the contested embodiments have also been supplied to Germany, for example to the Max Delbrück Center in Berlin.

Furthermore, in the second half of April 2023, the Defendants carried out a promotional tour for the contested products in Europe; events were also held in Germany (Hanover and Würzburg). The Defendants are holding numerous other events at research institutes to demonstrate the contested embodiments and also have such events planned for the coming weeks and months (event announcements as Annexes BP 19 to BP 19c).

The offers are also attributable to all Defendants. Although the written submissions of the Defendants sometimes state that *Defendant 1)* offers the disputed products (e.g. in paragraph 52 of the opposition), other times it is stated that the products or a process are those of "the Defendants" (e.g. in paragraphs 48, 159, 178, 198, 206 or 207 of the opposition). The Local Division therefore shares the Claimants' assumption that the contested embodiments and their offer in Europe are attributable to all Defendants.

This establishes the competence of the Munich Local Division of the UPC. In that context, it is not relevant for the question of competence whether, after legal assessment by the Court, a patent infringement indeed follows from the above argument. The legal assessment of the allegation of an act performed in Germany as a patent infringement is not the subject of the examination of competence; in this respect, conclusive submission is sufficient.

II. The **request** for provisional measures is **admissible.**

The Defendants do correctly point out that a request for provisional measures may also be dismissed as inadmissible by default if the request does not comply with certain formal requirements; this follows from Rules 206(2), 208(1), 16(2), (3), (4) and (5) RoP and applies to the formal requirements referred to therein. However, the registry responsible for examining these formal requirements (Rule 208(1), first sentence RoP) did not find any deficiencies in the request. As a result, no request to remedy deficiencies was made pursuant to Rule 16(3) RoP and no submission was made to the judge pursuant to Rule 16(5) RoP. The request for a default judgement required under Rule 355 RoP was also not filed.

Irrespective of this, none of the deficiencies to which the Defendants objected are present.

For the examination of the formal requirements of the request by the Registry, the only decisive factor is whether the information required by the RoP is *formally* available. Whether the information is also correct in terms of content is reserved for judicial examination; in this respect Rule 211(2) RoP applies. Having said this, the following is to be said about the individual formal objections:

1. Claimant 2) submitted in the request that they are the proprietor of the patent at issue and that they have granted Claimant 1) an exclusive licence to the patent at issue. Thus, the formal requirements according to Rules 206(2)(a), 13(1)(f) RoP are fulfilled. The validity of the patent or licence ownership is not to be assessed within the framework of the formal examination by the Registry, but is the subject of the Court's decision on the merits. Therefore, the request is not dismissed as inadmissible under Rule 206(2)(a), 13(1)(f), 16 RoP even if the Court substantively denies the status as patent proprietor or (exclusive) licensee.

2. Even if, according to the Defendants, the Claimant side has only made a vague submission in the request regarding the need for provisional measures, the formal requirements under Rule 206(2)(c) RoP are thus fulfilled. Rule 206(2)(c) RoP is not subject to the formal examination by the Registry. Rules 208(1), 16 RoP apply to the Registry's examination programme; Rule 206(2)(c) RoP (corresponding to the grounds to be stated in the request in the proceeding on the merits pursuant to Rule 13(1)(n) RoP) is not mentioned there.

   Rule 206(2)(c) RoP requires only that reasons be given for the necessity of the measures requested; whether these statements convince the Court as to their content is not the subject of the examination of the formal requirements of the request, but of the Court's decision-making on the merits. Dismissing the request as inadmissible because the information in question is vague or "not comprehensible" is therefore out of the question.

3. The objection regarding Rule 206(2)(d) RoP is also not valid.

   Submissions of facts and evidence are – as in the case of a statement of *claim* in the proceeding on the merits (Rule 13(1)(m) RoP) – not subject to the formal examination by the Registry under Rules 208(1), 16 RoP.

a. The Claimants based their request on certain evidence (annex bundle BP 1 etc.) and gave notice of the submission thereof within the appropriate timeframe for electronic service on the Defendants; the ordering of provisional measures without hearing the Defendants (Rule 209(4) RoP) was not requested. Irrespective of the fact that the evidence was finally submitted, a dismissal of the request as inadmissible due to the outstanding submission of the evidence at the time of the filing of the request is out of the question, if only because Rule 211(2) RoP expressly provides that the Court may order the Claimant to submit the available evidence if this has not already been done with the filing of the request.

   To the extent that the Defendants complain that the annexes were only submitted in response to the written procedural order of the Judge-rapporteur dated 27 June 2023, this also does not lead to the inadmissibility of the request for an injunction. At least in the initial phase of the UPC's activities relevant here, the Claimants' representative and the Local Division assumed that the opening of a *workflow* by the Court was required for the uploading of documents in the UPC's case management system; therefore, the aforementioned procedural order of the Judge-rapporteur was issued in order to enable the Claimants' side to upload the annexes.

b. The statements on validity objected to by the Claimants with regard to Rule 206(2)(d) RoP as being missing in the request do not lead to the inadmissibility of the request either.

   It is true that Rule 206(2)(d) RoP also refers to the validity of the patent at issue; this already follows from the express reference to Rule 211(2) RoP.

   In their request for an order, the Claimants stated that a revocation action with reference number 3 Ni 20/22 (EP) was pending before the German Federal Patent Court (BPatG) in respect of the German part of the parent patent and that the BPatG had set out its provisional opinion in its qualified remarks of 7 February 2023, according to which the parent patent is valid to the extent of auxiliary request 1. Corresponding statements on the patent at issue could not be expected due to the lack of ongoing validity proceedings at the time of filing the

request; the opposition against the grant of the patent at issue is dated 18 July 2023.

In view of the principles on the burden of presentation and proof that apply to the submission on validity – at least in proceedings conducted on two sides, as in the present case – on the basis of Article 54 UPCA (see in detail A. IV. 3. below), the requirements for the submission on the validity of the patent at issue set out in Rule 206(2)(d) RoP must not be overstretched. By presenting the facts relating to the parent patent that are also indirectly relevant to the patent at issue (action for revocation; qualified remarks from the BPatG), the Claimants have met the formal requirements of Rule 206(2)(d) RoP with regard to statements on the validity of the patent at issue.

4. The objection regarding Rule 206(2)(e) RoP (requirement for the request for an order to contain a brief description of the claim to be filed in the proceeding on the merits) is also not valid.

The relevant information is, in turn, not subject to the formal examination under Rules 208(1), 16 RoP; a complaint by the Registry and a submission by the judge under Rule 16(5) RoP were therefore not made.

Notwithstanding this, it is not within the spirit of Rule 206(2)(e) RoP to apply to requests for provisional measures under Article 62(1) UPCA, since in this case the objective of the request (cease and desist) is no different from the final injunction in the proceeding on the merits (Article 63(1), first sentence, UPCA); it would be mere formality to require the Claimant to state that they will base the claim in the proceeding on the merits on the same facts and evidence as the request for an order under Article 62(1) UPCA. The spirit of Rule 206(2)(e) RoP clearly indicates that that Rule relates to requests under Articles 60 and 61 UPCA, which requests may precede the commencement of proceedings on the merits; in such cases it is indeed useful to briefly describe the subsequent claim on the merits in accordance with Rule 206(2)(e) RoP. Rule 206(2)(e) RoP is to be reduced teleologically to the effect that requests under Article 62(1) UPCA are not affected by this requirement.

5. Contrary to the view of the Defendants (opposition, paragraph 89 et seq.), dismissal of the request as inadmissible due to being manifestly unfounded is not possible. Whether the Claimants' submission is convincing in terms of content is not the subject of the formal examination, but of the decision on the merits. Consequently, it is not a question of the admissibility of the request.

6. Insofar as the Defendants justify the inadmissibility of the request with reference to a decision of the German Federal Court of Justice (BGH NJW-RR 2015, 541) on the basis of a lack of need for legal protection from the Defendants' point of view, this argument also fails.

It can be left open whether enforcement of a judgement already given in one of the contracting states of the UPCA in respect of another IP right (here the parent patent) enables simpler enforcement than obtaining a decision from the UPC. This is because while enforcement of a judgement of the court of a contracting state of the UPCA only concerns infringements of the judgement in that contracting state, decisions of the UPC in the case of a European patent have uniform effect in all contracting states of the UPCA. Thus, in view of the territorial scope of decisions of the UPC in relation to decisions of the courts in the contracting states, there is generally a need for recourse to the UPC. In addition, the Claimants asserted the parent patent before the Regional Court Munich I, so that the subject matter of the dispute is different.

III. Both **Claimants** are **entitled to file a request**.

In view of their legal position, both Claimants are also entitled to bring actions before the UPC for the asserted patent infringement.

1. According to the patent at issue, Claimant 2) is its proprietor. Their entitlement to file a request thus follows from Article 47(1) UPCA.

In their statement of opposition, the Defendants contested the validity of the proprietorship of Claimant 2) with regard to possible infringements of US law, namely the *Bayh-Dole Act*. The Defendants did not dispute the related submission of Claimant 2) in their Reply that they had complied with the relevant requirements resulting from the *Bayh-Dole Act*, in particular that they had

disclosed the invention to the NIH in due time, had claimed the right to the invention in accordance with the requirements of the *Bayh-Dole Act* and had filed a patent application for the invention, especially since Claimant 2) had submitted an affidavit by Ms. Karen Sinclair, Director of Intellectual Property at Claimant 2). The Local Division therefore considers Claimant 2)'s submission on compliance with the requirements of the *Bayh-Dole Act* to be undisputed. In view of this, the question of whether the infringements initially alleged by the Defendants under the relevant US law even result in Claimant 2) losing their position as patent proprietor can remain open. The question of whether the formal legal position according to the entry in the register is sufficient for entitlement under Article 47(1) UPCA, or whether the substantive entitlement is ultimately decisive, can also be left open.

2. Claimant 1), as the holder of a non-exclusive licence, is entitled to file a request at least under Article 47(3) UPCA.

a. The local division can leave open whether – as claimed by the Claimants – an exclusive licence in favour of Claimant 1) was validly agreed between the Claimants. According to Article 62(4) UPCA, the court would have to be sufficiently convinced that Claimant 1) is the holder of an effective exclusive licence under Article 47(2) UPCA and can therefore bring an action before the court for infringement of the patent at issue in the same way as Claimant 2). However, on the basis of the judgement of the *US District Court for the District of Delaware* (hereinafter "District Court of Delaware"), submitted as Annex B 15, there are doubts as to whether Claimant 2) could validly grant an exclusive licence to Claimant 1), since, in the opinion of the *District Court of Delaware*, Claimant 2) has made a commitment to the NIH

> "...to offer non-exclusive patent licenses..."

In the event that Claimant 2) has made a commitment to the NIH to grant non-exclusive patent licences with respect to the patent at issue, the Local Division cannot be convinced with sufficient certainty in the summary proceedings that it was possible to grant an exclusive licence contrary to this commitment; this question is therefore reserved for a detailed examination of the relevant US law

in the proceeding on the merits in the event that it is relevant for a decision. The court is also not convinced by the Claimants' argument that the granting of an exclusive licence under the *Bayh-Dole Act* was not precluded in view of the decision of the *District Court of Delaware.*

According to Article 47(3) and (4) UPCA, the simple licensee is also entitled to affirm a cease-and-desist action in his own name under Article 62 UPCA; according to Article 47(3) UPCA, the only decisive factor in this respect being that the licence agreement with the patent proprietor permits this. This is obviously the case here.

b. However, the court is convinced that Claimant 1) is entitled to file a request under Article 47(3) UPCA.

According to Article 47(3) UPCA, the holder of a non-exclusive licence is also entitled to file a request if the patent proprietor has been informed of the seizing of the court by said holder and the licence agreement expressly allows the request to the court. The court is convinced that both are the case here: Claimant 2) was informed of the seizing of the court by Claimant 1); the request was filed together with Claimant 1). According to the submission in the written statement of 11 August 2023, both Claimants also agree that there is at least a non-exclusive licence agreement between them concerning the patent at issue, which allows Claimant 1) to bring the matter before the court in the sense of the asserted request. It is also neither apparent nor submitted by the Defendant side that any infringements of NIH funding conditions resulting from the grant of an exclusive licence prevent a later agreement on a simple licence.

IV. The **Local Division** is **convinced of the validity of the patent at issue.**

The Local Division is also convinced with the "sufficient certainty" required under Article 62(4) UPCA and Rule 211(2) RoP, namely with even clearly preponderant likelihood (from the Local Division's point of view, "preponderant likelihood" is sufficient; for the required degree of likelihood, see in detail under A. IV. 4.) that the patent at issue is legally valid.

While the validity of the patent is not expressly mentioned in Article 62(4) UPCA, in contrast to Rule 211(2) RoP, as a subject matter for the formation of convictions, only a person who relies on a patent which is valid to the satisfaction of the court can be deemed to be the rights holder within the meaning of Article 62(4) UPCA.

1. Subject matter of the patent at issue

The subject matter of the patent at issue is, as the introductory sentence of the claim states, a method for detecting a large number of analytes in a cell or tissue sample.

a. The patent at issue first explains that in biology there is a need for multiplexing techniques to examine biological samples because biological samples are valuable, it is often unclear exactly what is being searched for or the information in question needs to be extracted from the sample (paragraph [0002]). Finally, paragraph [0002] (underlining by the Court) states:

> "Hence, it is desirable for clinicians and researchers to subject each sample to a large set of probes."

It is precisely this wish, the patent at issue reports in its description, that the prior art does not satisfactorily fulfil. Since only a limited number of colours are available for optically reading out a sample, one possibility is to repeat the examination of the sample several times (paragraph [0006]). This is described by way of example as follows:

> "For example, the assay can involve probing the sample with 4 different antibodies at a time and imaging after every assay. If the test requires probing the sample with a total of 64 antibodies, the 4-probe procedure would have to be repeated 16 times using the sample."

For this purpose, however, the examination must sometimes be prioritised with regard to the various target analytes of a sample, since certain analytes can decay during successive sampling. In the sense of a patent-compliant task, it then states (underlining by the Court):

> "Accordingly, there is still a strong need for accurate and sensitive methods with a high throughput for detection, identification, and/or quantification of target molecules in a sample, e.g., complex mixtures". (paragraph [0006]).

Finally, in the following paragraph [0007] of the description, the solution according to the patent is stated (underlining by the Court):

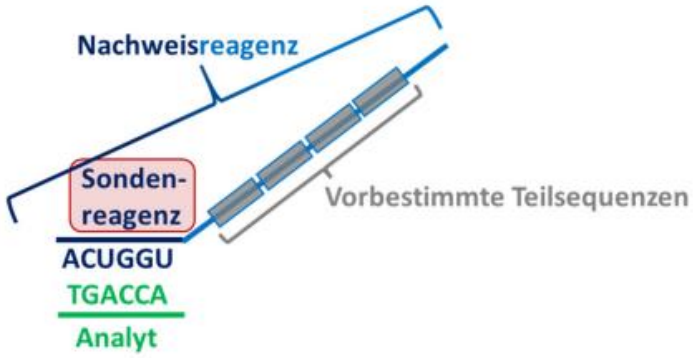
> "The present invention is defined in the appended claims. Embodiments provided herein are based on, at least in part, the development of a multiplexed biological assay and readout, in which a multitude of detection reagents comprising one or more probes and/or probe types are applied to a sample, allowing the detection reagents to bind target molecules or analytes, which can then be identified in a temporally-sequential manner. Accordingly, provided herein are methods, for detecting multiple analytes in a sample."

b. On the basis of the above, the claimed invention can be described as follows on the basis of claim 1 of the patent at issue:

After the cell or tissue sample to be examined is placed on a solid support, the intended detection is carried out in a method that can be roughly divided into two parts:

In a first part of the method ("**binding of the analyte**"), the cell or tissue sample is brought into contact (“contacted”) with a composition containing a plurality of detection reagents. In order to be able to actually detect the multitude of analytes that are presumed to be in the sample and are to be detected, a plurality of detection reagents is also required, which are to bind to the multitude of analytes contained in the sample in this first method step.

According to the claim, a detection reagent consists of a probe reagent and one or more pre-determined subsequences. Both are connected ("conjugated") to each other. This can be illustrated as follows (figure from the order request of 1 June 2023, page 43):



Key to figure:

Nachweisreagenz	-	*detection reagent*
Sondenreagenz	-	*probe reagent*
Vorbestimmte Teilsequenz	-	*pre-determined subsequence*
Analyt	-	*analyte*

For the first part of the method, the probe reagent is significant, while the subsequences of the individual detection reagents only become relevant in a **second part of the method ("detection of the analyte").** A probe reagent has the task of targeting one of the many analytes (this is also shown in the figure above). The plurality of detection reagents whose probe reagents target binding with different analytes are divided into groups, called subpopulations. According to the claim, each subpopulation from the total group of detection reagents targets a specific analyte, just as each probe reagent targets a specific analyte. Consequently, the probe reagents determine the membership of a subpopulation.

For the targeting of a large number of subpopulations from the total amount of detection reagents to a large number of analytes in the sample, as described in the patent at issue for the purpose of binding, the time factor also plays a role: the binding process requires sufficient time, which is made possible by incubating the sample with the detection reagents.

After the first part of the method, a large number of detection reagents, which are bound to a large number of analytes, are found in the sample. In the following (second) part of the method, the detection reagents are detected via their subsequences. This is done by using decoder probes that hybridise specifically with corresponding subsequences of detection reagents. According to the patent, these decoder probes are again subdivided into subpopulations. Each decoder

probe subpopulation hybridises with a specific subsequence of a detection reagent. For this purpose, each decoder probe subpopulation produces a signal signature by means of a detectable label.

After detection and removal of the signal signature, the hybridisation process is repeated with a new set of decoder probes "in a temporally-sequential manner" so that other subsequences can be detected. This produces a temporal order of signal signatures. This is unique for each subpopulation of the plurality of detection reagents; it follows that the detection reagents of a specific subpopulation (e.g. subpopulation A) must be identical with respect to their subsequences.

Finally, the temporal order of signal signatures thus produced is used to identify the detection reagents and thus to detect the respective analytes.

2. Claim 1 of the patent at issue can be structured as follows (colouring/underlining by the Court):

A method for detecting a plurality of analytes in a cell or tissue sample, comprising

1. (a) mounting the cell or tissue sample on a solid support;

2.1 (b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents,

2.1.1 the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;

2.2 (c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

2.2.1 each subpopulation of the plurality of detection reagents targets a different analyte , wherein

2.2.2 each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes, and

2.2.3 one or a plurality of pre-determined subsequences, wherein the probe reagent and the one or the plurality of pre-determined subsequences are conjugated together;

3.1 (d) detecting in a temporally-sequential manner the one or the plurality of pre-determined subsequences, wherein the detecting comprises:

3.1.1 (i) hybridizing a set of decoder probes with a subsequence of the detection reagents,

3.1.1.1 wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes, and wherein

3.1.1.2. each subpopulation of the decoder probes comprises a detectable label,

3.1.1.3. each detectable label producing a signal signature;

3.1.2 (ii) detecting the signal signature produced by the hybridization of the set of decoder probes ;

3.1.3 (iii) removing the signal signature; and

3.1.4 (iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

4. (e) using the temporal order of the signal signatures corresponding to the one or the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample.

3. The meaning of individual terms and features of the patent claim is disputed between the parties, so that they require **interpretation.**

a. Assuming that the subject matter of the patent at issue is a method for the detection of a plurality of analytes in a cell or tissue sample , it is first necessary to clarify what the patent at issue understands by a **cell or tissue sample** . For a person skilled in the art reading the patent claim in the light of the description, and taking into account their general knowledge in the art, it is thus clear that the "cell or tissue sample" as claimed is a sample that is still recognisable as a cell or tissue.

The Defendants correctly point out that the patent claim does not speak of an *intact* cell or tissue sample, so there does not seem to be a corresponding

limitation according to the wording; furthermore, cell or tissue samples according to the claim can be untreated or pre-treated, because based on the wording of the patent claim there is no limitation in this respect either. However, this does not justify the conclusion that every component belonging to a cell is also a cell or tissue sample within the meaning of claim 1. The claim also requires the mounting of the cell or tissue sample on a solid support. This means that in any case the sample must not be pre-treated to such an extent that it is in fact no longer a cell or tissue sample.

The following is explained in the description for pre-treatment:

> "[0048] In some embodiments, the method described herein can further comprise processing the sample before contacting with the composition comprising a plurality of detection reagents described herein. **Depending on the types and/or natures of the samples and/or analytes, different sample processing techniques can be used with the methods described herein.** Exemplary sample processing techniques include, but are not limited to, mechanical processing of a sample (e.g., without limitations, homogenizing, centrifuging, vortexing, sectioning and shearing), addition of at least one reagent to a sample (e.g., without limitations, lysis buffers, RNA or DNA extraction reagents, RNA or DNA digestion reagents, enzyme inhibitors, fixing agents, organic solvents, antibodies, permeabilizing agents and immunohistochemistry agents), separation of a sample (e.g., without limitations, filtering, centrifuging, electrophoresis, western blot, and Northern blot), **mounting a sample on a solid support (e.g., a microscopic slide),** and any combinations thereof.
>
> [0049] By way of example only, **if a sample is a tissue from a subject** (e.g., a biopsy for immunostaining), sample processing can include, but are not limited to, tissue sectioning, mounting on a solid support, fixing the tissue, permeabilizing the tissue (if intracellular proteins are to be detected), blocking non-specific reactions with the detection reagents."

The question to what extent a cell or tissue must still be present as such in the sample can, in the opinion of the Local Division, be left open; what is decisive for the consideration here is that, according to the wording of the claim, a part of the genomic DNA that has been isolated and amplified from a cell cannot be qualified as a cell or tissue sample according to the claim, because for a person skilled in the art this is not a ***cell or tissue sample.*** This understanding is confirmed in the expert reports submitted by the Defendants. The PRV expert report (B10)

recognises that a cell or tissue sample is not the same as a "*genomic DNA sample*". Dr F. explains on p. 12 of his expert report:

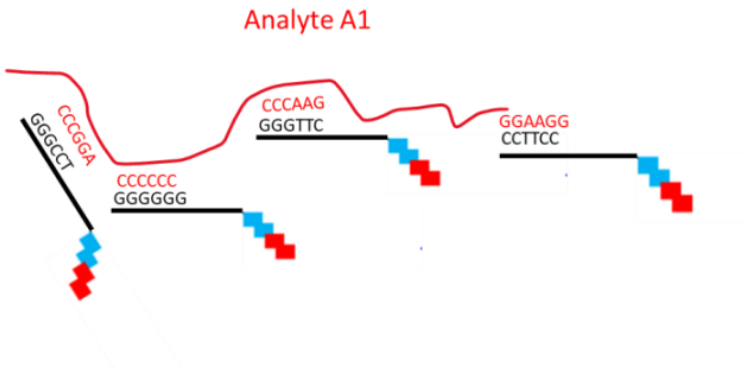
> *"It is clearly understood that DNA fixed on a slide differs in some obvious respects to DNA present in a fixed tissue sample on a slide*".

In other words, what is claimed is not the examination of genomic DNA isolated from a cell or tissue sample, but the examination of cell or tissue samples containing such analytes. The view of the Defendants that, according to the patent, the pre-treatment of a sample can also comprise the isolation of genomic DNA cannot therefore be followed. Although such a pre-treatment of a sample is not excluded according to the description, a person skilled in the art would no longer speak of a cell or tissue sample after such a treatment.

b. The allocation of a detection reagent to a given **subpopulation**, as stated in the claim, also requires clarification.

Contrary to what one might assume from a cursory reading of the claim wording ("plurality of analytes", "plurality of detection reagents"), there are not necessarily as many detection reagents as analytes in the composition according to the claim. Rather, there is a correlation between the number of analytes to be detected in the cell or tissue sample and the number of subpopulations of the plurality of detection reagents. This results from the fact that the plurality of detection reagents is, according to the claim, regarded as a totality (total set), which in turn has a plurality of so-called "subpopulations" (subsets). Each of these subpopulations targets a different analyte, which establishes the correspondence between the plurality of analytes and the plurality of subpopulations of detection reagents. Consequently, the Defendant side must agree that a subpopulation according to the claim is a subset of a total set (namely the plurality of detection reagents); it is also correct that a subpopulation is characterised by the fact that certain properties of the elements of a subpopulation are identical. However, the Defendants' view that both the probe reagent and the pre-determined subsequences of the detection reagents belonging to a subpopulation must be identical in order to be assigned to the same subpopulation cannot be accepted. Claim 1 of the patent at issue itself defines the assignment of a detection reagent

to a subpopulation to the effect that **the reagent targets the same analyte as the other reagents of this subpopulation.** For this, an identity of the probe reagents is not necessary, because the probe reagent can bind to different sections of an analyte – as the Defendant side itself argues with the figure shown below.



Thus, the identity of the corresponding probe reagents is not necessary for the detection reagents to belong to a certain subpopulation of detection reagents, since different probe reagents can also bind to the same analyte. According to the claim, it is not decisive to *which section of an analyte* it binds, but only to *which analyte* it binds. According to the claim, each subpopulation of detection reagents targets a specific analyte; subpopulation A targets analyte A, subpopulation B targets analyte B, and so on.

According to this understanding of the patent at issue, it is correct to say that X subpopulations of the totality of detection reagents target binding to X analytes. According to claim 1, all detection reagents that target the same analyte are elements of a subpopulation of detection reagents. Crucial for this binding process is the so-called probe reagent, which is a component of each detection reagent and has the function of targeting a specific analyte. However, with regard to targeting a specific analyte, the patent at issue does not require that the probe reagents that are to be assigned to a subpopulation be identical; according to the wording of the patent claim, it is sufficient that they target the same analyte – from the point of view of a person skilled in the art, they do not have to be identical for this purpose.

c. It is also necessary to clarify what is **repeated** according to feature 3.1.4.

According to the wording of the patent claim, only the hybridisation of the decoder probes with the subsequences (i) and the removal of the signal signature (iii) seem to have to be repeated in the subsequent detection sequences, but not the detection of the signal signature produced in each case (ii); literally, the claim reads: "**repeating (i) and (iii)**". The conclusion drawn from this by the Defendants, that the patent discloses in this respect that the detecting of the signal signature has to take place only in the first of the multiple sequential detection rounds, while no longer having to take place in the subsequent rounds, is technically obviously absurd. A person skilled in the art will always seek to make the content of a patent make sense.

If the detection of the signal signature is only performed in the first round in accordance with the claim, the "use of the temporal order of the signal signatures" required by the claim would no longer be possible. The claim feature describing this repetition process therefore also reads: "repeating […] to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures..." However, this is only possible if the signal signatures are also detected with each repetition.

d. Finally, the meaning of feature 4, **using the temporal order of the signal signatures** to identify the detection reagents and thus to detect the analytes, needs to be clarified.

The wording of the patent claim ("...using the temporal order ... to identify...") is clearly to be understood as meaning that the temporal order of the signal signatures is the means according to the patent for identifying the subpopulation of detection reagents. No other means are mentioned. The claim also gives no reason to assume that further means of identification might be involved or even necessary, since it attributes the quality of being “unique” to the temporal order of the signal signatures.

4. Standard of "sufficient certainty" with regard to the validity of the patent at issue

Neither the UPCA nor the Rules of Procedure specify in any greater detail which degree of conviction is required if this is to be "sufficiently certain" with regard to the validity of the patent at issue. In principle, any **degree of likelihood** can be considered ("some likelihood", "preponderant likelihood", "substantial likelihood" (Article 55(2) UPCA), "high likelihood", "likelihood bordering on certainty", to name just a few examples of degrees of likelihood). The correct understanding of the term "sufficient certainty" must be based on the specific purpose of the conviction. In the case of Article 62(4) UPCA and Rule 211(2) RoP, it must be taken into account in particular that it is a matter of ordering temporary *provisional measures* in *summary proceedings* (Rule 205 RoP) under Rule 213 RoP, not final orders within the meaning of Article 63 UPCA. In view of the provisional nature of the measures and the limited possibilities of discovery in summary proceedings in relation to proceedings on the merits, it follows that the standard of likelihood must be lowered. Therefore, a likelihood bordering on certainty cannot be demanded. Ultimately, for a sufficiently certain conviction of the validity of the patent at issue, a **preponderant likelihood** is necessary, but also sufficient. Therefore, for a sufficiently certain conviction on the part of the Court, it must be more probable that the patent is valid than not valid.

Insofar as the Defendants rely on the fact that, according to German case law on the prognosis of the validity of the patent in proceedings for provisional legal protection, the revocation of the patent does not have to be preponderantly likely, but only *possible* on the basis of the Defendant's revocation claim, this case law on national procedural rules is not relevant in the scope of application of the UPCA and the RoP.

Insofar as the Defendants point out, in connection with the standard for examining the validity, that the validity of the patent at issue is to be assessed independently, this reference is entirely in line with the UPCA and the RoP; in particular, Rule 211(2) RoP expressly states that the Court must be able to satisfy itself that the patent in question is valid. Rule 209(2)(a) RoP also shows – albeit in a different context (exercise of discretion under Rule 209(1) RoP – that the validity of the specific patent at issue is decisive. According to Rule 209(2)(a) RoP, it is therefore

of importance in the context of the formation of conviction with regard to the validity of the patent at issue whether "the patent" was maintained in opposition proceedings before the European Patent Office or was the subject of proceedings before another court; with regard to the patent at issue, however, none of this is the case, so that this circumstance cannot contribute to the formation of conviction of the court. In Germany, the parent patent was the subject of legal disputes between the parties, the impact on the present proceedings being assessed differently by the parties.

Insofar as the Defendants make detailed submissions on the "high rates of revocation of granted patents" (opposition, paragraph 267) and deduce from this that these high revocation rates must also be taken into account in the present proceedings, the Local Division does not follow this. First of all, it must be noted that the figures submitted by the Defendants show at most a high rate of revocation of the patents challenged with an opposition or a revocation action; however, this is at most a small proportion of the patents *granted.* Pursuant to Rule 211(2) RoP, the Court has to make a decision on a case-by-case basis with regard to the concretely asserted patent in view of the validity. It follows from the necessity of a case-by-case assessment that general statistical findings on the frequency of revocation are not to be taken into account.

3. Burden of presentation and proof regarding validity

a. According to the principle laid down in Article 54(1) UPCA, the **burden of proof** for facts relating to the lack of validity of the patent at issue lies with the Defendant, because the Defendant claims that the patent at issue will have to be declared invalid. This also corresponds to the distribution of the burden of proof in revocation proceedings and in the case of counterclaims for revocation. Insofar as Article 62(4) UPCA or Rule 211(2) RoP provides that the court may *order the* Claimant to submit evidence on the validity of the patent, this does not mean a departure from this principle in the sense of a different burden of proof rule for the injunction proceedings. Article 62(4) UPCA and Rule 211(2) RoP are "may" provisions, so that the court has a discretion. The court will in particular exercise this discretion and order the Claimant to provide evidence of the validity of the patent at issue if it considers the validity of the patent at issue to be endangered

by the arguments of the opposing party, which is in principle obliged to provide evidence of lack of validity. This is also in line with the case law of the European Court of Justice (decision C-44/21, paragraph 41 with reference to decision C-307/18, paragraph 48; on the binding effect of decisions of the European Court of Justice for the UPC, see Article 21 UPCA). According to this case law, the presumption of validity of granted European patents may be challenged by the submissions arguments of the Defendant, so that orders to produce evidence against the Claimant may then be justified.

It follows from the system of allocation of the burden of proof described above that the Claimant's side - contrary to the view of the Defendant's - does not bear the burden of proof for the validity of the patent at issue, at least not initially.

b. Irrespective of the above-mentioned principles on the distribution of the burden of proof, the Claimants were obliged under Rule 206(2)(d) in conjunction with Rule 211(2) RoP to submit evidence regarding validity with the request (see A. II. 3. b. above). The obligation to make such submissions is not limited to the patent at issue, but also extends - as in this case - to other patents from the patent family of the patent at issue that are relevant for the examination of the validity of the patent at issue, provided that they are the subject of an attack on the validity of the patent at issue. The obligation to make corresponding submissions also applies, of course, if these attacks have not yet led to revocation. This obligation, which deviates from the main proceedings and applies to requests for orders for provisional measures, is justified by the fact that provisional measures can also be granted without hearing the Defendant.

4. Person skilled in the art

In the view of the Local Division, the person skilled in the art to be consulted to assess the legal situation in the case at hand is a chemist or biologist with a university degree in the field of biochemistry who has experience in the field of detection strategies for biomolecules. This is in line with the Defendants' comments on the relevant person skilled in the art. The Local Division is staffed with a relevant technically qualified judge. One of the legally qualified judges also has a university degree (MSc) in molecular biology.

Based on the principles set out above regarding the burden of proof and the standard of probability to be applied in forming a conviction, the following applies with regard to the patent at issue from the point of view of the person skilled in the art relevant in the case at hand:

5. The Local Division is convinced that the patent at issue will not be revoked due to inadmissible **extension**.

Any amendment to the parts of a European patent application or a European patent relating to disclosure (the description, the claims and the drawings) is subject to the mandatory prohibition on extension laid down in Article 123(2) EPC and may therefore, irrespective of the context of the amendment made, only be made within the scope of what the person skilled in the art can directly and unambiguously infer from the entirety of these documents as originally filed, using general technical knowledge, objectively and in relation to the filing date.

Based on this standard of review, the following can be stated here from the perspective of an person skilled in the art:

a. Insofar as the Defendants see an inadmissible extension in the fact that the patent at issue does not expressly state in the wording of the claim (feature 3.1.4) the repetition of step (ii) ("detecting the signal signature produced by the hybridization of the set of decoder probes"), the Local Division does not follow this.

According to the correct understanding of the claim, the detection described in feature 3.1.2 is required in each repetition, since otherwise no "temporal sequence of signal signatures could be produced" (feature 3.1.4). Any other understanding would obviously be incompatible with the technical sense of the method in accordance with the claim, which is clearly expressed by its wording: the patent claim explicitly indicates several times (features 3.1.4 and 4) that the detection is provided by determining the temporal order of the signal signatures produced by multiple repeated hybridisations. In view of this, it is technically and functionally indispensable that detection is also provided for all signal signatures produced with a hybridisation (feature 3.1.2); the Defendants' side did not oppose

this during the discussion of this question at the oral proceedings. An infringement of Article 76(1) EPC is therefore not discernible.

b. Insofar as the Defendants see an inadmissible extension in the fact that in the application for the parent patent the temporal order *actively* identifies the detection reagents, whereas in claim 1 of the patent at issue the sequence is used *passively* ("using the temporal order of the signal signatures [...] to identify a subpopulation of the detection reagents"), this is also not an inadmissible extension.

Since the wording of the patent claim ("...using the temporal order ... to identify...") - as explained in the context of claim interpretation - is clearly to be understood to mean that the temporal order of the signal signatures is the means for identifying the detection reagents according to the patent and that the identification results without further analysis steps from this order produced according to the requirements, no difference results from whether this feature is formulated linguistically actively or (allegedly) passively.

6. A revocation of the patent at issue for lack of **novelty** is not to be expected according to the firm conviction of the Local Division.

The Local Division is convinced that the patent at issue will not be revoked for lack of novelty. On the contrary, the Local Division assumes with sufficient certainty that the patent at issue is valid with regard to the novelty required for the grant of the patent.

In order to be able to identify a lack of novelty, the subject matter of the invention must clearly, unambiguously and directly result from the prior art. This applies to all claim features. The standard for the disclosure content of a publication is what can and may be expected from an average person skilled in the relevant art in terms of knowledge and understanding.

Based on this standard of review, the following must be stated here:

a. Insofar as the Defendants deny the novelty of the patent at issue with reference to ***Göransson*** (D6), the court does not consider this objection to be prejudicial to novelty.

Contrary to the wording of the claim of the patent at issue, the object of the detection in D6 is not cell or tissue samples, but so-called amplified single molecules ("amplified single molecules" or ASMs), which are obtained from "padlock or selector probes" with which isolated genomic DNA fragments of cells were detected. ASMs are therefore not analytes of cell or tissue samples within the meaning of the patent at issue.

Insofar as the German Federal Patent Court (Bundespatentgericht; BPatG) considers it possible in its qualified reference of 7 February 2023 (Annex BP6) that the subject matter of claim 1 of the parent patent is anticipated in a manner prejudicial to novelty by *Göransson* (in these proceedings "D6", at the BPatG "NK12"), this finding cannot be transferred to the patent at issue, because in contrast to the wording of the relevant claims of the parent patent, which use the term "sample" alone (for the term "sample" see point 3.2 of the BPatG's qualified reference), claim 1 of the patent at issue contains the term "*cell or tissue sample*", which is obviously restricted. Thus, while "amplified single molecules" (ASMs), as underlying the consideration in *Göransson*, can be qualified as "samples" in the sense of the parent patent, they are not cell or tissue samples in the sense of the patent at issue, according to the Local Division.

The court also assumes, as already indicated at the oral proceedings, that the patent at issue in accordance with claim 1 also requires the mounting of the cell or tissue sample on a fixed support. In the case of *Göransson,* on the other hand, it is ASMs that are mounted on a fixed support; in this respect, too, *Göransson* is not detrimental to novelty in the view of the court.

The Local Division further assumes, as already indicated at the oral proceedings, that the patent at issue, as shown by its claim 1, also requires the continuation of the binding between the analyte and the detection reagent established by incubating the cell or tissue sample with the detection reagents during the second stage of the process; the Court reads this in particular from feature 2.2

("...sufficient amount of time to allow binding...") and the fact that dissolution of this binding is neither addressed in claim 1 of the patent at issue nor appears technically meaningful. In *Göransson,* on the other hand, the bond between analyte and reagent is dissolved in each case ("after each imaging") ("dehybridization of ASMs"); in this respect, too, *Göransson* is not detrimental to novelty in the view of the court.

b. Even insofar as the Defendants deny the novelty of the patent at issue with reference to US 2010/0151472 (D12), the Court does not follow the Defendants' argumentation.

The D12 is not detrimental to novelty if only because it does not show (also in its example 2) that a temporal sequence of signal signatures concerning the same detection reagents is generated in a temporally sequential manner by repeated hybridisation (of a set of decoder probes with the partial sequences of the respective detection reagents) in order to identify them. In Example 2 of D12, two rounds of hybridisation are also performed; however, the subject matter of the first round is different detection reagents (specifically HLA-DR antibodies and CD24 antibodies) compared to the second round of hybridisation (CD44 antibodies and CD66 antibodies).

7. A revocation of the patent at issue due to **lack of inventive step** is also not to be expected according to the firm conviction of the Local Division.

According to Article 56 EPC, an invention is considered to involve an inventive step if it is not obvious to a person skilled in the art from the prior art.

The (closest) prior art to be used for determining lack of inventive step is usually a prior art document disclosing an object developed for the same purpose or with the same aim as the claimed invention and having the most important technical features in common with it, i.e. requiring the fewest structural changes. An important criterion in choosing the most promising starting point is the similarity of the technical task. In this respect, more weight should generally be given to aspects such as the designation of the subject matter of the invention, the formulation of the original task and the intended use as well as the effects to be achieved than to a maximum number of identical technical features.

Based on this standard of examination, the Local Division is not convinced, in view of the documents submitted by the Defendants, that the patent at issue will be declared invalid for lack of inventive step.

a. As far as the Defendants want to refer to *Duose et al. 2010* (D8) as prior art to prove the lack of inventive step of the patent at issue, the court cannot see that this document suggests the invention according to the patent.

The subject of D8 is the "in situ imaging of molecular markers" (D8; Introduction, first sentence). The problem is that the number of markers (analytes) in a biological sample exceeds the number of detection agents (in the case of D8, a combination of a so-called "targeting agent", a so-called "catalyst" and a substrate with fluorophore) that can be used simultaneously for detection. The D8's approach to solving this problem is to remove the substrate after a first run under particularly mild processing conditions in order to be able to use it again in a subsequent run to detect *another marker* ("...remove fluorescent probes ...such that new markers ...could be labelled and detected using the same fluorescent reporting molecules."). Notwithstanding the fact that the D8 explicitly demarcates itself from the use of in situ hybridisation probes (page 2327, Introduction, 2nd and 3rd paragraphs), the skilled person is also not encouraged to use the method in accordance with the claim with the D8 because the solution principles differ considerably: whereas according to the solution principle of the D8, *one and the same colour marker is* to be used in a second run for the detection of a *different* analyte (marker) after intermediate detachment ("remove fluorescent probes"), according to the sophisticated solution principle, a *different set of decoder probes* (i.e. not the same one) is used in the further hybridisation rounds in order to produce a temporal sequence of signal signatures for the same analyte (i.e. not a *different* marker as in the case of D8), with which the multitude of analytes is then detected in the cell or tissue sample.

The principle of D8 can thus be described as using the same substrate in a first run for the detection of a marker (analyte) A, while in a second run it is to be used for the detection of a marker (analyte) B. This idea of multiple use of a colour-providing substrate for the detection of different analytes is far removed from the principle of detecting an analyte in accordance with the claim to which a detection

reagent has bound by producing a temporal order of signal signatures on that detection reagent - and therefore does not suggest the invention.

As far as the Defendants argue that for a person skilled in the art the invention would have been obvious at least by combining D8 with *Göransson* (D6), the Local Division sees no concrete technical reason for this; nor can it be deduced from the Defendants' submission why the person skilled in the art should have been motivated to deviate from the solution taught in *Duose* (D8) for an in situ analysis for cell or tissue samples and instead use a fundamentally different method from a fundamentally different context in order to be able to detect more analytes, as taught in *Göransson* (D6). D8 therefore teaches away from the claimed invention for the reasons stated above.

b. The printed publication *Duose et al. 2011* (D27), which originates from the same group of researchers as D8, also does not suggest the invention in accordance with the patent to the person skilled in the art. D27 is based on the same principle as D8, so that reference can be made to the above explanations. In the context of D27, the markers are also removed in order to use them in a second round of marking for "new complexes"; the targets of the first round are called TS1 and TS2, and TS3 and TS4 in the second round.

   As far as the Defendants argue that for a person skilled in the art the invention would have been obvious at least by a combination of D27 with D8 and/or D6, this does not lead to a different result; in this respect, the explanations concerning D8 apply accordingly.

c. As far as the Defendants want to refer to WO 03/003810 (D23) as prior art to prove the lack of inventive step of the patent at issue, the Local Division does not follow this either. D23 concerns a detection method by which different analytes are detected simultaneously by so-called multiplex staining and are thus to be distinguishable from each other. According to the Defendant's submission, it remains open "how exactly this distinction is to be made". It is not discernible for the Local Division how the relevant skilled person, starting from D23, should have come to consider a time-sequential approach as taught by the patent at issue.

The Court also cannot see any reason for the skilled person to read publications D6 and/or D8 on the basis of D23.

d. Further, insofar as the Defendants want to refer to *Göransson* as prior art to prove the lack of inventive step of the patent at issue, the court does not follow this.

The skilled person would not have used *Göransson* as a realistic starting point, let alone as the closest prior art, in view of the task according to the patent. *Göransson* is not aimed at detecting a large number of analytes in a cell or tissue sample (D6, abstract). Rather, the object of consideration in *Göransson* is ASMs on "a new random array format". *Göransson* does disclose a similar "encoding and decoding method" to that used in the patent at issue, but in a very different context, namely ASMs on an array. This method would not, without hindsight, "transport" the skilled person from an array of ASMs to a cell or tissue sample (mounted on a solid support) without specific inducement. The Local Division, however, is convinced that no such inducement has been presented. The mere reference to "*in situ*" in *Göransson* in relation *to* ASMs used in earlier genotyping techniques is not sufficient for this. As the Federal Patent Court also opines, the application of the *Göransson* doctrine in an in *situ context* is not at issue here.

Finally, and for the sake of completeness, the Local Division notes that even if the skilled person had proceeded from *Göransson* to to the application of a cell and tissue sample, this would not have led him to the claimed invention, since the claim requires that the detection reagents remain bound to the analytes and are not renewed at each step for detection in a sequential manner of the partial sequences of these reagents. *Göransson* gives no reason to adapt this measure. In contrast, in *Göransson* the binding between analytes and reagents is released in each case ("after each imaging") (D6, page 3, paragraphs "Hybridisation of ASM" and "Dehybridisation of ASM").

Even a combination with *Gunderson et al. 2004* (D13) does not lead the skilled person to the claimed invention. It is not apparent why the skilled person should "go back in time" to the teachings of *Gunderson*, which also deals with microarray technology, and thus arrive at the invention. In addition, the Fourneaux opinion

also admits that there are "obvious differences" between "DNA fixed on a slide" (i.e. a microarray) and "a fixed tissue sample on a slide" (the patent claim).

Moreover, Fourneaux's thesis, which amounts to saying that the person skilled in the art would have no insurmountable objections to applying the teaching from *Göransson to* a cell or tissue sample (and would thus see a "very high expectation of success"), is based on a retrospective view (*ex post facto* analysis) with knowledge of the invention; even if one wanted to follow this, however, it does not necessarily follow that the person skilled in the art would actually have done so, which would, however, be necessary to establish a lack of inventive step.

e. Insofar as the Defendants wish to refer to US 2010/0151472 (D12) as prior art to prove the lack of inventive step of the patent at issue, the Local Division does not follow this line of argument either. The teaching contained therein is far removed from the patented solution for the reasons stated with regard to novelty.

A person skilled in the art would not have chosen D12 as the starting point for his considerations in view of the task underlying the patent at issue; thus, the combinations put forward for discussion by the Defendants in this context are not relevant either.

8. The **invention according to the patent is completely disclosed** to enable a person skilled in the art to carry out the invention.

A successful defence of insufficient disclosure requires raising serious doubt, substantiated by verifiable facts, that a skilled reader of the patent would not be able to carry out the invention on the basis of his general knowledge of the subject matter.

Based on this standard of review, the following must be stated:

a. As far as the Defendants claim that the patent does not teach how unbound detection reagents are removed before the detection step and how meaningful results can be obtained without such removal, this cannot be followed in view of the clear indications on this in the description of the patent at issue. Paragraph [0011] states unequivocally:

"As described herein, the method can further comprise **removing any unbound detection reagents before detection of the pre-determined subsequences** in a temporally-sequential manner."

Paragraph [0050] also provides sufficient guidance to remove - where necessary - unbound detection reagents.

b. As far as the Defendants also argue with regard to practicability (as already with regard to inadmissible extension) that it is not taught in the patent how a temporal order of the signal signatures should be achieved if the detection step is not repeated together with the hybridisation and signal removal steps, reference is made to the corresponding explanations on the subject of inadmissible extension (above 5.a).

c. To the extent that the Defendants further argue that the invention cannot be carried out with extremely short decoder probes and that the patent does not provide the person skilled in the art with instructions on how a decoder probe with only a single nucleotide can nevertheless be used for detection, the Court does not find this to be insufficient disclosure.

The person skilled in the art knows from his general knowledge of the art and also from the patent description (paragraph [0059]) that there are decoder probes of different lengths; also on the basis of the claim and the description of the patent at issue the Defendants have not shown any reason to doubt that a person skilled in the art is able to choose an appropriate sequence length for the implementation of the patented method.

d. As far as the Defendants claim that the patent at issue does not contain a single example of an in situ "highplex" detection, although the Claimant's side claims with regard to the parent patent that the claimed method enables an (allegedly better) highplex analysis compared to the prior art, from the point of view of the Local Division it is only to be noted that, based on the patent claim, an *in situ "highplex" detection* as a claim feature is not to be discussed.

V. The Local Division is convinced with sufficient certainty, namely with at least a high degree of probability, that the Defendants **infringe** the patent at issue both **directly** and **indirectly.**

1. The Defendants violate the Claimants' right to prohibit **direct use of** the patent-protected method.

Under Article 25(b) UPCA (right to prevent the direct use of the invention), a patent confers on its proprietor the right to prevent third parties from using, without its consent, a method which is the subject matter of the patent or, if the third party knows or ought to have known that the use of the method is prohibited without the consent of the proprietor of the patent, to offer it for use within the territory of the contracting member states in which that patent has effect.

The Defendants directly infringe the rights deriving from the patent at issue under Article 25(b) UPCA by applying the method protected by the patent at issue themselves in their laboratory in Amsterdam and by offering to apply it to third parties; corresponding acts in the territory of the UPC are the subject of a request for an order **A. I**.

a. The Defendants' method indisputably serves to detect a plurality of analytes in a cell or tissue sample.

b. The Defendants' method indisputably includes the mounting of the cell or tissue sample on a solid support.

c. The Defendants' method indisputably involves contacting the cell or tissue sample with a composition comprising a plurality of detection reagents. The Defendants also do not dispute that in their method the plurality of detection reagents comprises a plurality of subpopulations of the detection reagents (feature 2.1.1); rather, the Defendants dispute the realisation of feature 2.2.1 (feature 3.1.1 according to the Defendants' outline; see e. below).

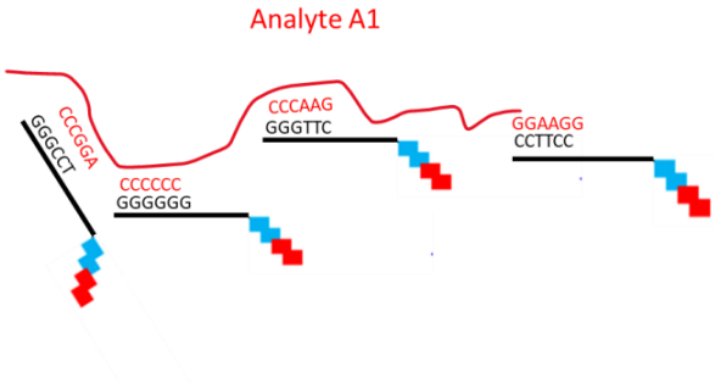
d. The defendants' method indisputably involves incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow the plurality of detection reagents to bind to the analytes.

e. Insofar as, from the point of view of the Defendants regarding the contested method, claim feature 2.2.1 according to which

> "... each subpopulation of the plurality of detection reagents ... [targets] a different analyte ..."

has not been realised, this cannot be followed on a correct interpretation of the patent claim (see A. IV. 3. b. above).

The Defendants are of the opinion that both the probe reagent and the predetermined subsequences of the detection reagents belonging to a subpopulation must be identical in order to be assigned to one and the same subpopulation. However, this was not the case in the contested method, as different subpopulations of ISH probes targeted the same analyte; they were therefore different subpopulations because the probes differed in their probe reagent. The Defendants illustrated this with the following figure:



From the point of view of the Defendants, it is thus decisive for an allocation to a subpopulation that the reagents are identical at the molecular level, which must also apply to the probe reagent.

However, on the Claimants' understanding, a subpopulation meeting the requirements is not necessarily characterised by an identity in the probe reagent, but only in accordance with the claim by the fact that each detection reagent belonging to the same subpopulation binds to the same target analyte. This does not require an identity of the probe reagent.

The Claimants' interpretation is correct (see A. IV. 3. b. above): according to the clear wording of the patent claim, elements of a subpopulation are all detection reagents which target the same analyte. Decisive for this binding process is indeed the so-called probe reagent, which is a component of each detection reagent and has the function of targeting a specific analyte. However, the patent at issue does not require the probe reagents in question to be identical with regard to targeting a specific analyte; according to the wording of the patent claim, it is sufficient that they target the same analyte - from a technical point of view, they do not have to be identical for this. This is also shown in the figure above. Consequently, detection reagents with different probe reagents (and therefore binding to different sections of the analyte) can also belong to a subpopulation in accordance with the claim. This understanding of the term "subpopulation" corresponds to the claim feature in question, according to which the only decisive factor for belonging to a subpopulation is that the same analyte is targeted. Thus, for example, if analytes A, B, C and D are found in a tissue sample, the detection reagents contained in a composition in accordance with the patent are assigned to a subpopulation (A) by the fact that they target analyte A, irrespective of the section of the analyte to which binding occurs. Each detection reagent that targets analyte A thus belongs to subpopulation A.

The ISH probes shown in the figure above therefore all belong to the same subpopulation because they bind fastidiously to the same analyte; the fact that the ISH probes bind to different sections of the same analyte is not relevant according to the patent claim and does not result in assigning the ISH probes shown to different subpopulations.

In the Defendants' method, each subpopulation of the multitude of detection reagents is therefore targeted at a different analyte, as required.

e. Each of the plurality of detection reagents in the Defendants' method indisputably comprises a probe reagent that targets one analyte of the plurality of analytes and a plurality of predetermined subsequences, wherein the probe reagent and the one or plurality of predetermined subsequences are conjugated together.

f. The Defendants' method indisputably also involves proving the multiplicity of predetermined subsequences in a temporally sequential manner.

g. In the Defendants' method it is undisputed that the proof step initially comprises:

- hybridizing a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes, and wherein each subpopulation of the decoder probes comprises a detectable label, each detectable label producing a signal signature (i),

- detecting the signal signature produced by the hybridization of the set of decoder probes (ii) and

- removing the signal signature (iii).

However, in the Defendants' method, contrary to the Defendants' assertion, detection also involves repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of signal signatures unique for each subpopulation of the plurality of detection reagents.

In this respect, the Defendants have argued that in their method the evaluation is carried out in a different way; the order of the signal signatures is generated in a completely different way. This cannot be followed. The Defendants' argument is based on an incorrect interpretation of claim 1 of the patent at issue (for interpretation see A. IV. 3. c. above).

aa. The defendants claim that in their method a detection step (ii) (taking an image of the slide after staining the decoder probes) is carried out in *each hybridisation round in* accordance with the claim. According to the patent claim, by contrast, only a repetition of steps (i) and (iii) takes place.

It must be conceded to the Defendants that the wording of feature 3.1.4 only refers to a repetition of steps (i) and (iii). However, the Defendants overlook the fact that feature 3.1.4 does not only state

"...repeat (i) and (iii) using a different set of decoder probes,...",

but further:

"... to detect other partial sequences of the detection reagents..."

It is thus clear that feature 3.1.2 ("(ii) detecting the signal signature produced by the hybridization of the set of decoder probes") must also be carried out in each hybridisation round, because only then can the signal signature produced by the hybridisation of the set of decoder probes be detected. Without the detection specified in feature 3.1.2, a hybridisation round would be completely meaningless. The necessity in accordance with the claim of (ii) in each hybridisation round is therefore clearly expressed in the sentence

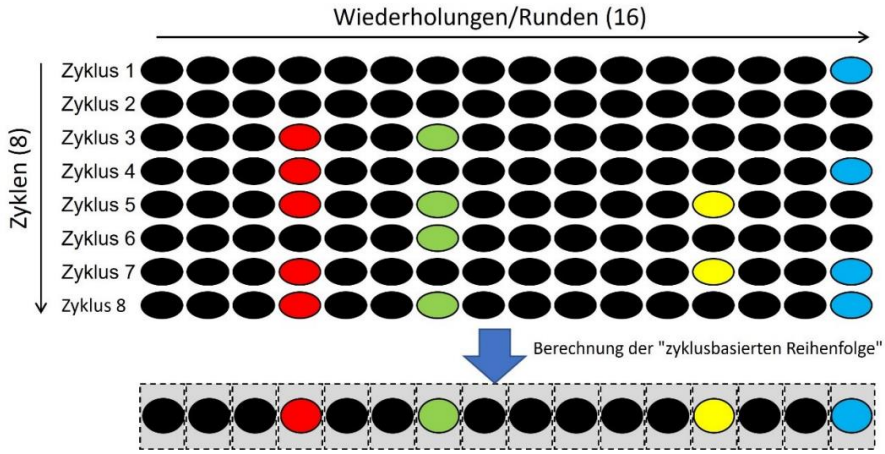
"... to detect other partial sequences of the detection reagents..."

bb. As far as the Defendants claim that in their method the analytes are not identified by the temporal sequence of signal signatures generated by repeating steps (i) and (iii), the Local Division does not follow this argumentation either.

The defendants have submitted that in their method a hybridisation cycle (in the example under paragraph 213 of the opposition there are 16 hybridisation rounds in each cycle) is repeated identically several times (in the example eight times, i.e. eight cycles). This was the only way to achieve a reliable and correct result. The temporal sequence of any signal signatures in the individual cycles (i.e. after rounds 1 to 16) is neither determined ("thereby generated") nor used to identify analytes. Such a temporal order (only rounds 1 to 16 of a cycle) would also not be unique for each subpopulation of the multitude of detection reagents. The temporal order of the signal signatures of the individual test rounds would not provide a sufficiently precise identity of an analyte. Therefore, in the Defendants' method, a cycle-based sequence is calculated instead of the mere temporal sequence and only this cycle-based sequence is used to identify analytes in order to obtain a reliable and correct result. The "**temporal order**" of the individual 16 test rounds per se, on the other hand, is not unique for an analyte and is not directly used for the identification of the analyte.

The Defendants thus admit that in their method a temporal sequence of signal signatures is produced by carrying out several rounds of hybridisation in accordance with the patent; the detection of the signal signature is carried out repeatedly in each round. As far as the Defendants argue that the hybridisation rounds are repeated in eight cycles in order to obtain the most accurate result possible, which is determined at the end of the last cycle, this is not detrimental to the realisation of the patent claim. The Defendants thus merely claim that the method in accordance with the claim is repeated several times in total in order to obtain the most reliable result possible.

It is also irrelevant that in the Defendants' method the mere temporal order of the signal signatures from the individual cycles is not regarded as a sufficient *final result,* but a so-called cycle-based order (a mean value of the signal hits from all cycles, so to speak) is calculated on the basis of all cycles. Thus, the Defendants' method goes one step further than required by claim 1 of the patent at issue; however, this is not without having first realised the method steps according to the claim. The method according to the claim also does not require that the temporal order of the signal signatures is always *correct*, i.e. that each individual hybridisation takes place without error and produces the correct signal signature; it only has to be *unique.* The model of the defendants in paragraph 213 of the objection (figure below)



Key to figure:

Zyklen	→	Cycles
Zyklus	→	Cycle
Wiederholungen/Runden	→	Repetitions/rounds

Berechnung der “zyklusbasierten Reihenfolge”

→ Calculation of the “cycle-based order”

suggests that the sequence of signal signatures is not correct in any cycle (none of the cycles shows the correct sequence red/green/yellow/blue of signal signatures). However, the Defendants have not claimed that in practice (i.e. independently of a theoretical model as shown in paragraph 213 of the opposition) their method never produces a temporal order of signal signatures related to the individual cycles which is unique for each subpopulation of the plurality of detection reagents so that it can be used to identify such a subpopulation and thus the corresponding analyte.

In particular, the method performed with the contested products also comprises using the temporal order of the signal signatures corresponding to the one or the plurality of predetermined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample.

h. Insofar as the Defendants are of the opinion that the implementation of certain method steps with a **cloud-based solution is** outside the scope of application of the UPC and that an infringement is therefore to be denied, the Local Division does not share this view.

aa. First of all, it must be stated that the **temporal order of signal signatures,** the creation of which the Defendants attribute to the cloud-based solution, is not produced by a data analysis, but - in accordance with the claim and thus also in the case of the contested method - by the repetitions described with claim feature 3.1.4. This is nothing other than the consequence of the sequential procedure. According to the patent claim relevant for the infringement examination, a data analysis is not required in this respect; a data analysis may only be necessary for the further, procedural steps in the Defendants' method which are not in accordance with the claim. The production of the temporal order of signal

signatures is thus the subject matter of the method steps in the method of the Defendants as conducted and offered in the territory of the UPC.

Insofar as data processing is therefore necessary in the contested method because the sequence of signal signatures produced in the individual cycles in accordance with the claim is deemed insufficient and therefore several cycles are carried out, which are finally concluded with the calculation of a cycle-based sequence, nothing else follows from this. A patent infringement cannot be denied, because the infringer, in addition to the method steps according to the claim, is carrying out further method steps that require data processing, which are undertaken outside the scope of the patent.

bb. Insofar as the Defendants claim that the **identification of the analyte in** the contested embodiments is not carried out on the device itself but on a computer-based system (cloud computing platform AtoMxTM Spatial Informatics) abroad and thus outside the scope of application of the UPC, an infringement cannot be denied on this ground either.

Claim feature 4 provides that the temporal order of signal signatures is used to identify a subpopulation of detection reagents and thus to detect the analytes. This claim feature can thus be understood as a mere indication of the purpose actually served by the order of signal signatures produced by the method in accordance with the claim (claim features 1 to 3.1.4), without expressing an independent method step in substance. Claim feature 4 thus does not represent a substantial method step, but merely a statement of purpose, which is not immanent with any new technical information that goes beyond the preceding claim features. This is shown by the following feature analysis, in which it is shown which sub-features of claim feature 4 must already be realised in the preceding claim features:

A method for detecting a plurality of analytes in a cell or tissue sample, comprising

...

3.1.4 (iv) repeating (i) and (iii) using a different set of decoder probes to detect other subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for (and thereby identifying) each subpopulation of the plurality of detection reagents; and

4. (e) using the temporal order of the signal signatures corresponding to the plurality of pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample.

This makes it clear that feature 4 has no independent technical content, since the essential elements of the feature are already contained at least implicitly in the other features, so that the realisation of that feature already follows directly from the realisation of the other features. It is not apparent that this linguistically different formulation results in an additional technical meaning, in particular a further method step, which has not already been expressed in the other features. From the point of view of a skilled reader, feature 4 therefore merely describes the result of the method, i.e. the effect aimed at by the application of the process.

2. The Defendants also violate the Claimants' right to prohibit **indirect use of** the patent-protected process.

Under Article 26(1) UPCA (right to prevent the indirect use of the invention), a patent confers on its proprietor the right to prevent any third parties from offering or supplying, without their consent, within the territories of the Contracting Member States in which the patent has effect, any person other than those entitled to exploit the patented invention, with means, relating to an essential element of the invention, for putting the invention into effect in that territory, if the third party knows or ought to have known that those means are suitable and intended for putting that invention into effect.

a. The Defendants indirectly infringe the patent at issue by offering and supplying the contested embodiment 2 (detection reagents) in the territory of the UPC for use in the method in accordance with the claim; corresponding acts are the subject of a request for an order **A. III**. It is obvious to the Defendants that the

contested embodiment 2 is suitable and intended to be used by their customers for a method in accordance with patent claim 1 in Germany and other UPC Contracting States, because the contested embodiment 2 is an object with which a direct act of use - the application of the method in accordance with patent claim 1 - can be realised, i.e. a means which is objectively suitable for direct patent use.

b. The Defendants further infringe the patent at issue by offering and supplying the contested embodiments 1 and 3 in the territory of the UPC for use in the method in accordance with the claim; corresponding acts are the subject of the requests for orders **A. II.** (contested embodiment 1) and **A. IV.** (contested embodiment 3).

It is obvious to the Defendants that the contested embodiments 1 and 3 are in principle suitable and intended to be used by their customers for a method in accordance with patent claim 1 in Germany and other UPC Contracting States, because the contested embodiments 1 and 3 are objects with which a direct act of use - the application of the method in accordance with patent claim 1 - can be realised, i.e. means which are objectively suitable for direct patent use.

The Defendants know that the infringing articles they supply are tailored to the application of the method in accordance with the patent. They are advertised both in Annex BP 3, BP 4 and BP 11 and on the website https://nanostring.com/products/cosmxspatial-molecular-imager/single-cell-imaging-overview/ for use in accordance with the claim. Accordingly, they are intended for patent-infringing use, as purposed by the Defendants, by the Defendants' customers.

However, since the contested embodiments 1 and 3 can be used not only for the detection of RNA, but also for the detection of proteins, an unlimited ban was not to be ordered with regard to these embodiments. In this respect, the Claimants only applied for a limited prohibition by affixing a warning.

The obligation of the Defendants, further requested by the Claimants in this context, to offer and supply the contested embodiments 1 and 3 only if a prohibitory injunction agreement with a contractual penalty is concluded with the customers in each case is, in the view of the Local Division, a suitable and reasonable means for the Defendants to prevent possible infringements of rights

by the Defendants' customers or at least to safeguard them by means of financial compensation.

3. The Claimants unsuccessfully applied not only to cease and desist from the use of the patented method or its offer, but also to “set aside" this. There is no legal basis for this under the UPCA, insofar as this was intended to make a *remedy to eliminate the impact of the infringement,* that means obliging the Defendants to recall the contested embodiments. The Local Division therefore dismissed the application for an injunction in this respect; this partial dismissal did not require a decision on the auxiliary requests, as they were only filed in the event that the Local Division considered the patent at issue to be valid only in a limited claim version.

VI. The order sought is in accordance with the Rules of Procedure.

1. The wording of the request for the order is not objectionable; in particular, it does not violate the Rules of Procedure.

   According to Art. 62(1) UPCA, the court may grant injunctions to provisionally prohibit the continuation of an infringement. A comparison with the measure under Art. 62(3) UPCA, which relates to potentially infringing products and is thus much more specific, shows that the Agreement grants the court a wide scope in the wording of the order to prohibit the continuation of infringements when ordering measures under Art. 62(1) UPCA. A limitation of the order to the specific designation or description of the contested products cannot be inferred from Art. 62(1) UPCA. It is therefore permissible to formulate the act to be prohibited under Art. 62(1) UPCA with the aid of the patent claim. In particular, this is also in accordance with Article 25 UPCA, according to which the subject matter of the patent determines the use to be prohibited; this is found in the respective patent claims concerned.

   In view of this, it is not objectionable that the requests for an order refer to the wording of claim 1 of the patent at issue to describe the act to be prohibited. This is a clear and definite expression of which acts are to be prohibited.

Insofar as the Defendants object to the fact that the deletion of the phrase *"one or"* in the requests for an order would result in modifications of the patent claim and thus assert a limited version of the claim, which was not granted in this way and thus does not exist, this does not constitute a violation of either the UPCA or the Rules of Procedure. If a patent claim, as in this case, provides for several alternatives for the design of a product or method in accordance with the claim, it is permissible to select in the request for an order the one that is the subject matter of the contested embodiment or the contested process. A correspondingly limited formulation of the request for an order merely specifies the infringement to be prohibited, but does not mean that the patent at issue is asserted in a limited or ungranted version. A correspondingly restricted request for an order must be possible, because the Claimant could also describe the specific form of infringement in the request instead of reproducing the patent claim; in this case, it would be obligatory to refrain from describing an alternative claim that does not have the form of infringement.

2. To the extent that the Claimants did not file further written auxiliary requests during the oral proceedings and thus followed a suggestion of the Local Division in order to dispel any doubts of the Local Division that might still exist after the question of the validity of the patent at issue had been discussed during the oral proceedings, the Local Division does not consider this to be a violation of the Rules of Procedure or of superior law. The indication given by the Local Division is in accordance with Article 42 UPCA and Rule 210 (2) ROP; countering a court notice, which also concerns the wording of the request, by filing a corresponding auxiliary request cannot be considered a violation of the Rules of Procedure. Ultimately, however, this is not relevant, as no decision had to be taken on the auxiliary request.

VII. The **ordering of provisional measures** is also **necessary.**

It follows from the requirement to state reasons for the provisional measure under Rule 206 (2)(c) RoP that there must be a necessity for ordering provisional measures. The mere finding of a (potential) patent infringement, which is also a

prerequisite for a permanent injunction under Article 63 UPCA, cannot therefore be sufficient for ordering provisional measures.

According to the RoP, both temporal and factual circumstances are relevant for the necessity of ordering provisional measures. The relevance of temporal circumstances results not only from Rule 209 (2)(b) RoP ("urgency") but also from Rule 211 (4) RoP, according to which the court shall take into account an unreasonable delay in applying for provisional measures. The relevance of factual circumstances for the necessity of granting provisional measures results, for instance, from Rule 211 (3) RoP, according to which, when deciding on the request for an order, the potential harm that the Claimant may suffer must also be taken into account *in particular* (while the potential harm for the defendant must be taken into account when weighing the interests).

1. Due to the circumstances in this case, the issuance of the requested provisional measures is necessary in terms of time.

The request made to the Local Division for provisional measures was filed at the earliest possible time. In the view of the Local Division, the Claimants cannot be expected to wait for the decision on the merits. The Defendants continue to offer the contested embodiments in the Contracting States to the UPCA; the judgments handed down by the Regional Court Munich I on 17 May 2023 have not changed this.

a. The Claimants filed the request for an order at the earliest possible date.

In order to determine a possibly unreasonable delay in filing the request, it must first be asked when the Claimants became aware of the (imminent) patent infringement; based on this, the point in time from which the request for provisional measures due to the infringement of the asserted unitary patent was possible before the UPC must be identified.

By their request for an order dated 1 June 2023, the Claimants allege infringement of a European patent with unitary effect granted on 11 May 2023. The UPC, which has exclusive jurisdiction to order provisional measures for infringement of a European patent with unitary effect (Article 32(1)(c) UPCA),

commenced its activities on 1 June 2023. In view of the date of commencement of the UPCA's activities, it was not possible to file an application with the UPC before 1 June 2023. Consequently, there can be no delay in filing the request (Rule 211(4) RoP) from this point of view (possibility of filing the application with the UPC).

b. To the extent that the Defendants are of the opinion that the Claimants had shown by their conduct prior to 1 June 2023 - in particular with regard to the enforcement of the parent patent, which was negligent from the Defendants' point of view - that the ordering of provisional measures for a possible infringement of the patent at issue is not urgent, the Local Division does not follow this line of argument.

There would have been no need to establish the UPC and a European patent with unitary effect (unitary patent) if adequate enforcement had already been possible on the basis of European (bundle) patents (*without* unitary effect). However, it is clear from the recitals of the UPCA that the enforcement of European patents without unitary effect is difficult due to the fragmented patent market and the considerable differences between the national court systems and is associated with considerable disadvantages. With the establishment of the UPC and the creation of the unitary patent, this state of affairs, which is correctly described as disadvantageous, should be improved and legal certainty thereby strengthened. The enforcement of a European patent without unitary effect, which must be carried out separately in all member states, is therefore not an equivalent means of enforcing rights in the case of infringement compared to the enforcement of a unitary patent before the UPC. According to the wording and the system, Rule 211(4) RoP accordingly refers only to the application for provisional measures under the UPCA and before the UPC. There are no indications that requests for provisional measures in the individual contracting states on the basis of a bundle patent or national patents could also be taken into account.

To the extent that the Defendants nevertheless claim that the Claimants were negligent in enforcing the parent patent (European patent without unitary effect) by either not taking any enforcement measures at all in the contracting states concerned despite being aware of the alleged infringement or, in any case, not

requesting an order for provisional measures in the individual contracting states, although this would have been possible well before 1 June 2023, this argument does not hold water. As shown, the Claimants did not have any enforcement measures available to them before 1 June 2023 that were equivalent to the request for an order filed here and thus reasonably available to achieve the same objective (uniform enforcement of patent protection in the entire territory concerned). The enforcement of a European bundle patent by way of provisional legal protection is, irrespective of the fact that it has to be carried out separately in each Contracting State concerned, associated with partly considerable further obstacles; this applies in particular to the enforcement of rights in the Federal Republic of Germany, where the relevant infringement courts, at least until the ECJ decision in case C-44/21 (Phoenix/Harting), made the issuance of provisional measures dependent on the patent having successfully passed an adversarial inventory procedure at least at first instance. In view of this, it is understandable that the Claimants, based on the parent patent in the Federal Republic of Germany, "only" brought proceedings on the merits before the Regional Court Munich I; this cannot be considered negligent in view of the case law practice described. Therefore, and also in view of the increase in the marketing activities of the Defendants in the period before 1 June 2023 (in particular the advertising tour through Europe in the second half of April 2023 "European Summit", Annex BP 18), the Claimants cannot be successfully accused of having been negligent in enforcing the parent patent and also the patent at issue.

In view of the enforcement possibilities available with a unitary patent compared to a bundle patent, it cannot be alleged that Claimant 2) delayed the enforcement by filing, on 21 April 2023, a request with the European Patent Office to defer the decision on the granting of the patent at issue in view of the imminent introduction of the unitary patent. In any case, this does not imply any delay in requesting provisional measures before the UPC, as provisional measures could only be requested before the UPC starting on 1 June 2023 at the earliest, which the Claimants did. By virtue of the possibility of the uniform enforcement of rights through the unitary patent applied for, Claimant 2) ultimately accelerated, and did not delay, the enforcement of rights.

c. The Claimants cannot be expected to wait for the decision in the main action. Even according to the submissions of the Defendants, it must be assumed that the rejection of the request for an order and the continued possibility of the Defendants to introduce patent-compliant products into the market will result in these products taking the place of Claimant 1's products and thus permanently blocking the market. Even if the Claimants currently achieve profits with their products on the market despite the actions of the Defendants and third parties that are contested as patent-infringing, this does not mean that the contested actions of the Defendants do *not* cause the described (long-term) harm to the Claimants. Consequently, the marketing activities of the Defendants are likely to cause the Claimants (whether as licensors or licensees of the patent at issue) considerable, in particular long-term, harm. Pursuant to Article 62 UPCA, the necessity of ordering provisional measures against the Defendants is also not dependent on whether and to what extent the Claimants are also threatened with harm by the acts of third parties, especially since there is no concrete submission on these acts (subject matter of infringement, area of distribution, market significance, etc.) and thus it remains unclear whether and to what extent such unspecified acts of further market participants are of equal significance and thus are to be treated equally.

2. The ordering of provisional measures is also necessary in factual terms.

The necessity arises from the potential harm to the Claimants by the Defendants' infringing product offering. The Defendants also unsuccessfully object to the order for provisional measures on the grounds of alleged disregard for mandatory procedural requirements. The order for provisional measures is also not precluded by the licence claim asserted by the Defendants against Claimant 2), because the existence of such a licence claim has not been established to the satisfaction of the Local Division.

a. The Claimants argued that they would be threatened with irreparable harm if they were referred to wait for the decision on the merits. The market for the patented products is very young and is in an initial phase in which it will be decided to which suppliers customers of high-multiplex in-situ imaging systems will commit

themselves for the next decade. This argument is confirmed by the advertising measures of the Defendants.

The parties to the dispute agree that the products in dispute have a long product life cycle (request for an order, p. 99; opposition, para. 873). The Claimants have submitted that customers would commit themselves to purchasing the detection reagents and decoder probes from the Defendants for many years due to the acquisition of infringing product 1. This assessment corresponds - conversely - to the submission of the Defendants stating that the market would be closed for years by a prohibitory injunction to the detriment of the Defendants because customers would commit themselves for years by making a purchase. In the expert opinion submitted by the Defendants, Professor S. therefore correctly speaks of a mirror image risk resulting from long-term customer loyalty.

Thus the parties agree in describing a situation in which either the Defendants may suffer harm from the issuance of the injunction or - in a mirror image - the Claimants may suffer corresponding harm from the dismissal of the request:

- If the Defendants are temporarily excluded from the market by a prohibition order, this has the consequence that missed business opportunities from the phase of exclusion are likely to be irretrievably lost even in the case of a later admission to the market (for example by a decision in favour of the Defendants in the main proceedings) in view of the long life of the products;

- if the Claimants have to tolerate, in the event that the request for an order is dismissed, the fact that the defendants are given the opportunity, at least for the time being, to occupy parts of the market with the long-term consequences described by both parties in agreement, this can also hardly be reversed in fact in view of the special features of the products concerned and the downstream sales market for the contested embodiments 2 and 3. Insofar as the Defendants believe that the Claimants would have the possibility to win back market shares gained by the Defendants by rescinding corresponding contracts of the Defendants with their customers, this cannot be expected of the Claimants, if only for the reason that they would have to take action against their own and also potential customers in

this respect; irrespective of the effort that would have to be expended, this would also damage the reputation of the Claimants in relation to their customers. Incidentally, all of this also applies to Claimant 2) granting the licence with regard to the proceeds from the licence.

Consequently, the described risk of harm does not affect the Defendants unilaterally. On this basis, in the view of the Local Division, the interest of the right holder in not having its rights infringed outweighs the interest of the potential infringer in securing market shares now through the continuation of the infringement, which it can no longer obtain later through a possible licence agreement. The harm potentially caused to the Claimants by a continuation of the infringing acts by the Defendants is also difficult to compensate financially, since it concerns acquisition transactions with long-term effects; their reversal is incomparably more difficult for the Claimants in comparison to the Defendants contractually involved in these transactions.

b. The Claimants also did not disregard any procedural rules when filing the request; in this respect, reference can be made to the statements under A. II. The Local Division can therefore leave open whether, as the Defendants argue, the disregard for procedural rules proves the lack of necessity for ordering provisional measures.

c. The Defendants were also unable to convince the court that they were entitled to a licence claim against Claimant 2), which could be held against the prohibitory injunction sought.

aa. A licence claim existing under *US law* has not been established to the satisfaction of the court.

(1.) To the extent that the Defendants argue that the **licence claim** arises directly **from the contract between the NIH and Defendant 2)**, this is countered by the fact that the Defendants cannot rely as third-party beneficiaries on any obligation of Claimant 2) to grant simple licences. The *District Court of Delaware* reached the following conclusion in its decision of 10 July 2023, referred to as the *Memorandum opinion and order*:

"...NanoString has not plausibly alleged that it is a third-party beneficiary of the NIH grant agreement."

The Local Division, which itself has no in-depth expertise in US law, follows the comprehensibly reasoned explanations of the US court.

The Defendants' arguments against this, submitted with two expert opinions by Professor C., are not convincing. It is to be assumed with the Defendants that appeals are possible against the final decision of the US court (the *memorandum* appears to be a preliminary decision on the admission of various applications). However, in the view of the Local Division, the US court was correct in denying the licence claim.

It can be left open whether legal opinions submitted to prove a legal assertion (in this instance existence of a licence claim under US law) constitute expert evidence at all within the meaning of Rule 181 RoP (according to Article 54 UPCA, the subject matter of the evidence is facts).

Ultimately, it can also remain open whether the expert opinion of Professor C. is an independent and objective expert opinion pursuant to Rule 181 (2) RoP ; at least due to the somewhat disconcerting and uninitiated engagement of the expert with the internet presence of the Claimant's representatives (expert opinion of 23 August 2023, no. 3.) and the overall tendency of one-sided legal statements in favour of the Defendants, considerable doubts are raised in this respect.

However, what is crucial is that the expert opinions of Professor C. do not show, beyond the mere legal assertion, why the Defendants should be considered third party beneficiaries in the specific case; in this respect, the expert opinions are essentially limited to general statements, but do not show the concrete application of the relevant US regulations (typically mentioned in footnotes) to the facts to be assessed here (expert opinion of 17 July 2023, paragraph 65 et seq.). The expert opinions state that other US courts have recognised a third party benefit in comparable cases (expert opinion of 17 July 2023, paragraph 64 ff.). Subsequently, comments are made on FRAND constellations without explaining that the case to be assessed here also involves a corresponding FRAND

constellation and that the respective decisions are even relevant in this respect (expert opinion of 17 July 2023, paragraph 68 et seq. and again at paragraph 81). The comments on *federal funding agencies* (expert opinion of 17 July 2023, paragraph 73 et seq.) are also not helpful in this context, as the Defendants are obviously not such an institution.

(2.) The Local Division is also convinced that a **licence claim which** includes the territory of the Contracting Member States of the UPCA does not arise as a consequence of any breaches by the Claimants of contractual obligations towards the NIH **under US competition or US antitrust law**.

A decision of a US court in favour of the Defendants which deals with the alleged licence claim under US competition or antitrust law and is recognisable and enforceable in the territory of the Contracting Member States of the UPCA has not been submitted.

The Defendants only make the legal claim that they are entitled to a licence if the Claimants' conduct violates US antitrust law or US competition law ("unfair competition") or is otherwise relevant with regard to the "unclean hands" jurisprudence. The expert states:

> "In the event that Harvard or 10x Genomics are found to have engaged in conduct that violates U.S. antitrust or unfair competition laws or that is otherwise characterized as evidencing "unclean hands" with respect to the NIH-funded patents, NanoString is entitled to a license under those patents."

This is followed by general statements on US law and the *possibilities of* US courts (opinion of 17 July 2023, paragraphs 100 et seq., 108 et seq.); however, there is no mention of specific provisions of US antitrust law or the Unfair Competition Act and their concrete application to the underlying facts. There is also no explanation of what effects a *possible* decision by a US court would have on the territory of the Contracting Member States of the UPCA and according to which provisions of US law such a decision should be able to extend to this territory at all.

bb. The objection that the Defendants have a licence claim against Claimant 2) under European law is also invalid. The Defendants cannot rely on an obligation of

Claimant 2) under European law to grant a licence to the patent at issue. The Defendants unsuccessfully argue that the Claimants' have abused a dominant market position in this regard. According to the submissions of the Defendants, a dominant position of the Claimants cannot be assumed; even if a dominant position of the Claimants were to be assumed, its abuse is not apparent.

(1.) It cannot be assumed, as far as this can be reliably assessed at all in summary proceedings and on the basis of the brief written submissions of the parties, that the Claimants have a dominant position.

A prohibited abuse of market power in European law (Article 102 TFEU) requires the existence of a dominant position. The ECJ understands this to mean

> "the position of economic strength enjoyed by an undertaking ... which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers" (see, for example, the ECJ's decision in Case C-549/10 P).

In order to establish a dominant position, the relevant market must first be defined in product and geographic terms before it can be determined whether a dominant position exists on this market. This also applies in principle to situations relating to intellectual property rights. In accordance with the prevailing demand market concept, the question is whether the products or services are demand-substitutable, i.e. whether the products are interchangeable from the customer's point of view. Another question is whether each service protected under intellectual property law forms its own product market. This can only be assumed if a protected service is not interchangeable with other services from the demand perspective. As a result, even the existence of a significant IP right does not relieve the practitioner of the obligation to assess in detail all relevant market conditions in their effects when establishing a dominant position in order to be able to make a sufficiently well-founded determination as to the IP right holder's ability to behave largely independently of competitors and demanders in the market concerned. In the field of patent-protected technology, a narrowing of the product market to the patent and thus the procurement of market dominance by the patent is conceivable if no other technology of the same market is available.

Market dominance can also be conveyed by de facto standards, which - unlike in the case of standard essential patents - are not based on an agreed standard, but on an actual enforcement against other technical solutions. Consequently, the lack of standard essentiality of a patent does not necessarily preclude the assumption of market dominance by the patent proprietor. Market dominance can also result solely from the superiority of the patent-protected technology.

Pursuant to Article 54 UPCA, the burden of proof for a dominant position of the Claimants lies with the Defendants, who invoke a licence claim under European antitrust law against the asserted request for a prohibition.

(a.) The Defendants, however, argue that the patent at issue is not valid and that the Claimants, inter alia, are building up an illegal thicket of invalid patents with the patent at issue. This means that there is no conclusive argument concerning a dominant position of the Claimants, because invalid patents cannot, in principle, establish a dominant position of their owner and, consequently, a licence claim against the patent owner, since they can be declared invalid at the request of a competitor.

(b.) However, if one assumes, as the Local Division does, that the patent at issue is valid (see IV. above) and also takes into account the Claimants' submissions when assessing the situation under cartel law, the following emerges:

The Claimants argued that the patented invention allowed for the first time the detection of 1,000 and more analytes in a sample in *situ,* whereas on the basis of the prior art it had at most been possible to detect a maximum of 6 to 10 analytes in *situ* in a sample. This was therefore a **technology leap** that made previously unattainable quantitative and qualitative findings possible, especially for research institutions. The Claimants' submission thus at least suggests the assumption of market dominance due to the superiority of the patent-protected technology.

However, the Defendants, for their part, have argued that the *contested embodiment* is technologically unique; research institutions and pharmaceutical companies **rely on the** contested embodiments for their work **and cannot replace them with an alternative analytical method available on the market**

(opposition of 21 July 2023, paragraph 933). Compared to all other in situ profiling instruments available on the market, the contested embodiments could detect the largest number of RNA molecules in a sample. The methods used with the product were protected by patents from at least 9 patent families.

It thus follows from the parties' submissions that both sides refer to unique, non-substitutable and patent-protected technologies for the relevant product market, which potentially establish a dominant position. The submission thus provides indications for the existence of mutual dependence due to the respective alleged technological strength of the market participants. Accordingly, it cannot be assumed without further ado that the Claimants have unilateral market power.

(c.) However, a complete and conclusive assessment of the question of market dominance is not possible for the Local Division in summary proceedings due to the scarce party submissions in this respect.

(2.) However, even if one were to assume a dominant position on the part of the Claimants, there is no abuse of this position by the Claimants.

The European Court of Justice has ruled in Case C-170/13 (Huawei./.ZTE) that Article 102 TFEU is to be interpreted as meaning that the *owner of a standard essential patent* (SEP) who has irrevocably undertaken vis-à-vis the standard-setting organisation to grant a licence to any third party on fair, reasonable and non-discriminatory terms (so-called FRAND terms) does not abuse its dominant position by bringing an action for an inhibitory injunction, if it has informed the alleged infringer of the patent infringement before filing the action, the infringer has thereupon expressed a corresponding willingness to grant a licence and the patent proprietor has thereupon submitted a concrete written licence offer to the infringer on these terms, indicating in particular the licence fee. The proprietor of an SEP therefore acts abusively if it does not make a concrete written licence offer to a licence seeker who is willing to license.

However, this case law only relates to standard essential patents. The European Court of Justice explicitly justifies the offer obligation imposed on the patent proprietor by stating that the patent proprietor has given an undertaking to the standardisation organisation to grant a licence for this patent to any third party on

FRAND terms. This obligation is, in a sense, the patent holder's consideration for the inclusion of its patent-protected invention in the standard.

However, the European Court of Justice has not ruled on whether the obligation to make a licence offer applies equally in other cases, for example in the case of a de facto standard. If one assumes, in accordance with the above, a possible dominant position of the Claimants, the crucial difference from the SEP constellation decided by the European Court of Justice is, in particular, the **licensing commitment** made by the patent proprietor which favours third parties. Such a commitment is lacking under the US law applicable to the facts to be assessed here (see the decision of the *District Court of Delaware*).

In contrast to SEP constellations, where there is an obligation on the part of the patent proprietor to offer licensing commitment that benefits third parties, the dominant patent proprietor is in principle not obliged to offer to allow the use of the invention itself. Therefore, a concrete licence offer by the licence seeker on non-obstructive or discriminatory terms is required. If the patent proprietor refuses this offer, it abuses its dominant position.

The Claimants did not make a concrete licence offer before the oral proceedings, but merely requested, several times however, that *Claimant 2) make* a *licence offer* (see duplicate, paragraph 321). However, Claimant 2) was not obliged to tolerate the use of the patent at issue by companies that were not prepared to offer to conclude a corresponding licence agreement themselves.

Insofar as the Defendants made a licence offer to Claimant 2) at the oral proceedings with reference to Annex BP 1 (Exclusive Licence Agreement between the Claimants), this offer was made too late with regard to the order to be made, as Claimant 2 was not able to respond to it at the oral proceedings. In addition, BP 1 only had a licence to the *German part of the parent patent* ("...licence under the German national part of EP 2 794 928...") or the German national part of EP 2 794 928...").

"...under the German national part of any divisional patent of EP'928..."

and thus cannot constitute a licensing of the patent at issue, which as a unitary patent has no national parts. In addition, the offer made at the oral proceedings

is also not an offer that can be accepted on reasonable terms, because the offer is only directed towards future use, without also taking into account the past use of the patent at issue by means of corresponding settlement and payment commitments.

VIII. Finally, the issuance of the requested order is also justified according to the **balancing of interests to** be carried out (Art. 62(2) UPCA, Rule 211(3) ROP).

Pursuant to Article 62(2) UPCA (Rule 211(3) RoP), the court shall exercise its discretion to balance the interests of the parties with a view to granting the order or dismissing the request; in doing so, all relevant circumstances shall be taken into account, in particular the possible harm which the parties may suffer as a result of the granting of the order or dismissal of the request for an order. In exercising its discretion, the degree of probability to which the court is convinced of the existence of the individual circumstances to be included in the weighing up is also crucial. The more certain the court is that the right holder is asserting the infringement of a valid patent, that there is a need to issue an injunction due to factual and temporal circumstances and that this is not opposed by possible damages of the opponent or other justified objections, the more justified the issuance of a prohibitory injunction is. Conversely, if uncertainties exist with regard to certain circumstances relevant for the weighing up of interests which undermine the court's conviction, the court may consider as a more lenient measure the alleged infringement to continue subject to the provision of security or even the dismissal of the request.

On this basis, the Local Division comes to the following conclusion:

The Claimants entitled to file the request are infringed by the acts of the Defendants in dispute in their rights arising from the patent at issue; the Local Division assumes this with a very high degree of probability. The Local Division is also convinced with a significantly higher probability that the patent at issue is valid; this conviction is not diminished by the auxiliary request submitted by the Claimants at the suggestion of the Local Division during the oral proceedings, in which the patent at issue is asserted in a restricted form. The Local Division is also firmly convinced that provisional measures are necessary due to the

infringement of a valid patent, both in terms of subject matter and timing. In particular, the Local Division is convinced that the Claimants cannot object to the requested prohibitory injunction by claiming that there is a licence claim against Claimant 2.) Additionally, the Local Division also does not consider the possibility of long-term harm caused by the order for provisional measures or their dismissal to be unilaterally to the detriment of the Defendants.

There are also no other circumstances to be taken into account in the context of the weighing up of interests that would argue against a prohibitory injunction:

- To the extent that the Defendants argue that a prohibitory injunction would in any case be disproportionate because the contested method is "a completely subordinate part of a larger, complex product", the Local Division cannot even determine how the method carried out with the contested embodiments can be described as a "part" of a product or what proportion is to be attributed to it; in any case, it is obviously not one of the individual parts indicated by the Defendants with 2394 pieces. Even in summary proceedings, the Local Division cannot reliably determine which other patents or systems, possibly developed at great expense, are used in the contested embodiments, how valuable they are and how they compare to the patent at issue. Nor is there any legal principle within the scope of application of the UPCA to the effect that the rights of third parties can be infringed with a complex product without the consequence of an injunction if a high financial outlay was made for the development of the product concerned. There is also no concrete submission as to why there is no (technical) possibility of offering embodiment 1, which according to the Defendants' submission is apparently multifunctional, without its patent-infringing function. In addition, the Defendants apparently did not see any reason to approach the Defendant 2) with a licence offer in order to avert a possible prohibitory injunction, even after the prohibition pronounced by the Regional Court Munich I with regard to the products at issue here.

- To the extent that the Defendants further argue about the proportionality of a prohibitory injunction that Claimant 2), as a non-practicing entity ("NPE"), has no interest worthy of protection in the enforcement of a prohibitory

injunction, since it is only pursuing monetary interests as a licensor, the Local Division does not follow this line of argument either. Pursuant to Article 62(2)UPCA, possible financial damages in particular can justify an injunction; the Local Division assumes that Claimant 2) will suffer such harm as a patent proprietor and licensor with long-term consequences if further infringements by the Defendants are not prevented. Article 47 UPCA also shows that the status of NPE in itself has no significance for the entitlement to file a request.

- To the extent that the Defendants argue that the disproportionate nature of a prohibitory injunction also results from the fact that the contested embodiments are non-substitutable and thus of irreplaceable importance for research into a large number of serious, life-threatening diseases and the development of therapies against these in the UPC Contracting States, this argument does not hold water either: the Claimants have argued that they are *competing products* in relation to Claimant 1)'s products. This is confirmed by the Defendant's side in its reply of 24 August 2023 (para. 341), when it states that it is

> "...the contested embodiment 1, like the competing product of Claimant 1, is an object with a very long product life ("...product, which is purchased for use over many years or decades..."). This is precisely what leads to the fact that a provisional prohibitory injunction would permanently block the market for the Defendants. ..." (underlining by the Local Division)

However, if the products are competing products and if Claimant 1's products substitute those of the Defendants in such a way that the market would be blocked for the Defendants' products even in the event of a prohibitory injunction being lifted, it cannot be assumed at the same time that the contested embodiments are products that cannot be substituted on the market.

The Defendants' submission regarding the potential consequences of a prohibitory injunction for the research activities of third parties is a mere assertion for which concrete, verifiable and admissible circumstances have

not been presented. In particular, it is unclear which concrete research projects and results would be put at risk. In this context, the submission also makes no reference whatsoever to the existing exceptions under Article 27 UPCA.

- Nor can the Local Division find within the scope of possibilities of summary proceedings that the Claimants, as alleged by the Defendants, are building up an **unlawful thicket of patents that are** not legally valid. In this respect, it cannot be established, at least, that all of the patents asserted by the Claimants in connection with the contested embodiments are invalid. At least for the patent at issue, the Local Division assumes validity; according to the preliminary view of the Federal Patent Court, the German part of the parent patent is also legally valid, at least in the auxiliary request. The Local Division is also precluded from assessing further patents in view of the at best general submission of the Defendants in this respect. At least according to the current assessment of the Local Division, an "illegal patent thicket" cannot be assumed.

- The facts to be assessed here are also, contrary to the view expressed by the Defendant, not *unsuitable* for ordering provisional measures. In view of the provisions in the UPCA and the RoP, the Local Division sees no evidence that the UPC should refrain from ordering provisional measures in the case of highly complex technologies and due to the large number of issues to be dealt with (in this instance, admissibility, jurisdiction, capacity to act, existence of rights, US law, antitrust law, direct/indirect patent infringement). In its recitals, the UPCA precisely expresses that the UPC should be able to ensure rapid and highly qualified decisions.

Taking into account and assessing all these circumstances, the Local Division comes to the conclusion that the requested measures - essentially following the request for an order - are to be ordered without the provision of security and that a continuation of the infringement against the provision of security would not be appropriate. The arguments put forward by the Defendants also do not lead to a different result.

B.

The legal basis for the order requiring the respective Defendant to pay the court a penalty payment of up to EUR 250,000.00 per infringement in the event of any infringement of the orders under A.I. to A.IV. is Rule 354 (3) RoP. The indication of a maximum amount is appropriate with regard to the sales value of the contested embodiments under 1 and leaves the court the necessary leeway to set an appropriate penalty payment under Rule 354(4) ROP in the case of other embodiments.

C.

The application had to be dismissed insofar as the Claimants requested not only a prohibitory injunction but also the cessation of the infringing acts.

D.

The Defendants, who have been largely unsuccessful, are to be ordered to pay the costs of the proceedings pursuant to Article 69(1) and (2) UPCA. The minor dismissal of the request for an order does not result in any costs.

E.

The immediate enforceability of the orders results from Rules 350 (2), 354 (1) RoP; according to these rules, the orders made here are directly enforceable in each Contracting Member State from the day of their service.

F.

The request of the Defendants to make the granting of provisional measures dependent on the provision of a security by the Claimants for the enforcement was to be dismissed.

Pursuant to Rule 211(5) RoP, the court may order the Claimant to provide adequate security for any reasonable compensation to be paid by it to the Defendant for the harm likely to be suffered by the Defendant in the event that the court revokes the order for provisional measures.

According to the parties' submissions, there are no indications for the Local Division that, in the event of a possibly necessary enforcement of a claim for compensation of the Defendants pursuant to Rule 211 (5) RoP against the Claimants in the USA, difficulties in connection with the enforcement are to be expected that require the provision of security; this applies both with regard to the economic condition of the Claimants and with regard to US enforcement law.

For these reasons, the Munich Local Division of the UPC, composed of the presiding judge Dr. Zigann, the legally qualified judges Kupecz and Pichlmaier and the technically qualified judge Enderlin, rules as follows

Decision and orders

A. The defendants are ordered, in the territories of the Republic of Austria, the Kingdom of Belgium, the Republic of Bulgaria, the Kingdom of Denmark, the Republic of Estonia, the Republic of Finland, the French Republic, the Federal Republic of Germany, the Italian Republic, the Republic of Latvia, the Republic of Lithuania, the Grand Duchy of Luxembourg, the Republic of Malta, the Kingdom of the Netherlands, the Portuguese Republic, the Republic of Slovenia and/or the Kingdom of Sweden, to cease and desist from

I. using or offering for use, in the territory of one or more of the States mentioned in A:

a method for detecting a plurality of analytes in a cell or tissue sample comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes;

wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of predetermined subsequences, wherein the probe reagent and the plurality of predetermined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of predetermined subsequences, wherein the detecting comprises:

(i) hybridising a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridization of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect different subsequences of the detection reagents, thereby producing a temporal order of signal signatures unique to each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of predetermined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample,

(direct infringement of claim 1 of EP 4 108 782)

II. offering and/or supplying for use in the territory of one of the States referred to under A. or in the territories of several of these States for use in the territory of one or more of the States referred to under A:

devices suitable for performing a method for detecting a plurality of RNAs in a cell or tissue sample comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the plurality of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of predetermined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridizing a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridization of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect different subsequences of the detection reagents, thereby producing a temporal order of signal signatures unique

for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of predetermined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample,

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the devices may not be used for the detection of RNA in a method pursuant to section A.I. without the consent of Claimant 2) as owner of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the devices for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each case of infringement;

(indirect infringement of claim 1 of EP 4 108 782)

III. offering and/or supplying in the territory of one of the States referred to in A. for use of the method in the territory of one of the States referred to in A. or in the territories of several of these States for use in the territory of one or more of the States referred to in A.:

detection reagents suitable for performing a method for detecting a plurality of analytes in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the analytes; wherein

each subpopulation of the plurality of detection reagents targets a different analyte, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an analyte of the plurality of analytes; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of predetermined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of predetermined subsequences, wherein the detecting comprises:

(i) hybridizing a set of decoder probes with a subsequence of the detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridization of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect different subsequences of the detection reagents, thereby producing a temporal order of signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of the pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of analytes in the cell or tissue sample,

(indirect infringement of claim 1 of EP 4 108 782)

IV. offering and/or supplying in the territory of one of the States referred to in A. for the use of the method in the territory of one of the States referred to in A. or in the territories of several of these States in the territory of one or more of the States referred to in A.:

decoder probes suitable for performing a method for detecting a plurality of RNAs in a cell or tissue sample, comprising

(a) mounting the cell or tissue sample on a solid support;

(b) contacting the cell or tissue sample with a composition comprising a plurality of detection reagents, the plurality of detection reagents comprising a plurality of subpopulations of detection reagents;

(c) incubating the cell or tissue sample together with the plurality of detection reagents for a sufficient amount of time to allow binding of the plurality of detection reagents to the RNAs; wherein

each subpopulation of the multiplicity of detection reagents targets a different RNA, wherein

each of the plurality of detection reagents comprises: a probe reagent targeting an RNA of the plurality of RNAs; and

a plurality of pre-determined subsequences, wherein the probe reagent and the plurality of pre-determined subsequences are conjugated together;

(d) detecting in a temporally-sequential manner the plurality of pre-determined subsequences, wherein the detecting comprises:

(i) hybridizing a set of decoder probes with a subsequence of detection reagents, wherein the set of decoder probes comprises a plurality of subpopulations of decoder probes and wherein each subpopulation of decoder probes comprises a detectable label, each detectable label producing a signal signature;

(ii) detecting the signal signature produced by the hybridization of the set of decoder probes;

(iii) removing the signal signature; and

(iv) repeating (i) and (iii) using a different set of decoder probes to detect different subsequences of the detection reagents, thereby producing a temporal order of the signal signatures unique for each subpopulation of the plurality of detection reagents; and

(e) using the temporal order of the signal signatures corresponding to the plurality of pre-determined subsequences of the detection reagent to identify a subpopulation of the detection reagents, thereby detecting the plurality of RNAs in the cell or tissue sample,

without

(1) stating explicitly, conspicuously and prominently on each offer, on the first page of the operating instructions, in the delivery documents and on the packaging that the decoder probes may not be used for the detection of RNA in a procedure pursuant to section A.I. without the consent of Claimant 2) as owner of EP 4 108 782 and that they must not be used for the detection of RNA without the consent of Claimant 2),

(2) imposing on the purchasers a written obligation not to use the decoder probes for the detection of RNA without the prior consent of Claimant 2), subject to the imposition of a reasonable contractual penalty to be

paid to Claimant 2), to be determined by Claimant 2) and, if necessary, to be reviewed by the competent court, for each case of infringement;

(indirect infringement of claim 1 of EP 4 108 782)

B. For each individual infringement of the orders under A.I. to A.IV., the respective Defendant shall pay to the court a (possibly repeated) penalty payment of up to EUR 250,000.

C. In all other respects, the request for provisional measures is dismissed.

D. The requests made by the Defendants are dismissed.

E. The defendants have to pay the costs of the proceedings.

F. The above orders are effective and enforceable immediately.

G. The amount in dispute is set at EUR 7 million.

INFORMATION ON THE APPEAL

The present decision may be appealed by any party which has been unsuccessful in whole or in part with its claims.

An appeal against the present decision may be lodged with the Court of Appeal within two months from the date of notification of the decision (Art. 73(1) UPCA, 220 (1)(a), 224 (1)(a) RoP).

INFORMATION ON ENFORCEMENT (ARTICLE 82 UPCA, ARTICLE 37(2) STATUTE OF THE UPC, R. 118 (8), 158 (2), 354, 355 (4) ROP):

A certified copy of the enforceable decision shall be issued by the Deputy Registrar at the request of the enforcing party, Rule 69 RegR.

INFORMATION ON THE DECISION AND ORDERS

Procedure number: UPC_CFI_2/2023
Number of the related request: ACT 459746/2023
Type of request: request for provisional measures

Number of the further procedure workflow: App 528389/2023

Type of procedural workflow: Summons to oral proceedings

Dr. Zigann Presiding Judge	
Pichlmaier Judge-Rapporteur	
Kupecz Legally qualified judge	
Enderlin Technically qualified judge	
Schmidt Clerk	