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**Datasheet for the decision
of 4 February 2021**

Case Number: T 2320/16 - 3.3.02

Application Number: 10173332.7

Publication Number: 2253620

IPC: C07D215/54, A61K31/47,
C07D401/12, C07D417/12,
C07D215/56, C07D401/04,
C07D491/10, C07D405/12,
C07D413/12, C07D211/00

Language of the proceedings: EN

Title of invention:

SUBSTITUTED 3-CYANOQUINOLINES AS PROTEIN TYROSINE KINASES
INHIBITORS

Patent Proprietor:

Wyeth Holdings LLC

Opponent:

Generics [UK] Ltd (trading as Mylan)

Headword:

Oral proceedings by videoconference

Relevant legal provisions:

EPC Art. 14(2), 53(b), 54(5), 56, 60(3), 70(1), 113(1),
114(1), 115, 116, 117(2), 123(1), 125, 134
EPC R. 103(1)(a), 106
EPC 1973 Art. 117
RPBA 2020 Art. 11, 13
Vienna Convention on the Law of Treaties (1969) Arts. 31 and
32

Keyword:

Oral proceedings - by videoconference
Inventive step - reasonable generalisation of the invention
(yes) - burden of proof

Decisions cited:

G 0005/83, G 0003/98, G 0002/12, G 0002/19, G 0003/19,
T 0939/92, T 0668/94, T 0643/96, T 1012/03, T 1266/07,
T 0415/11, T 1807/15, T 0488/16, T 1378/16

Catchword:

Oral proceedings by videoconference are consistent with the
right to oral proceedings pursuant to Article 116 EPC
(Reasons, 1)



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Case Number: T 2320/16 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 4 February 2021

Appellant: Generics [UK] Ltd (trading as Mylan)
(Opponent) Albany Gate
Darkes Lane
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Hertfordshire EN6 1 AG (GB)

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Respondent: Wyeth Holdings LLC
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Representative: Pfizer
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 25 July 2016 rejecting the opposition filed against European patent No. 2253620 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman M. O. Müller
Members: P. O'Sullivan
P. de Heij

Summary of Facts and Submissions

I. The appeal of the opponent (hereinafter "appellant") lies from the decision of the opposition division to reject the opposition against European patent 2 253 620.

II. The patent was opposed under Article 100(a) (inventive step), (b) and (c) EPC.

According to the contested decision, the ground for opposition under Article 100(a) EPC in combination with Article 56 EPC did not prejudice the maintenance of the patent as granted.

III. During opposition proceedings, *inter alia* the following documents were cited:

- D3: WO 96/09294 A
- D6: Affidavit of Maria Angelica Linton dated 6 August 2015
- D7: Affidavit of Brian W. Murray dated 11 August 2015
- D13: Boschelli et al., J. Med. Chem. 2001, 44, 3965-3977
- D15: Boschelli et al., J. Med. Chem. 2004, 47, 1599-1601
- D23: Affidavit of Brian W. Murray dated 27 August 2015

IV. A communication of the board pursuant to Article 15(1) RPBA was sent in preparation of oral proceedings, scheduled at that time as in-person oral proceedings, in accordance with the corresponding requests of the parties.

- V. With a letter dated 4 December 2020, the patent proprietor (hereinafter "respondent") *inter alia* stated that the likely continuation of coronavirus-induced travel restrictions from the UK to Germany may prevent it from taking part in the scheduled in-person oral proceedings. It thus requested postponement of the oral proceedings to a date on which attendance in person would once again be possible. On the other hand, although aware of the proposal to introduce new Article 15a RPBA, the respondent did not consider the holding of oral proceedings by videoconference to be appropriate in the present case, which concerned a patent of great commercial and scientific importance, and covered the compound bosutinib, approved as the active ingredient in a medicinal product for human use by the European Medicines Agency in 2013. It considered that a videoconference would not allow it to present its case as effectively as was possible in in-person oral proceedings.
- VI. With a letter dated 11 January 2021 the appellant requested that oral proceedings not be postponed from the scheduled date of 4 February 2021, and instead be held by videoconference.
- VII. With a communication dated 15 January 2021 sent by the registry on behalf of the board, the board stated that it had found the respondent's arguments not to hold oral proceedings by videoconference unconvincing, and therewith invited the parties to oral proceedings by videoconference on the same date as originally scheduled for in-person oral proceedings.

VIII. Oral proceedings before the board were held by videoconference on 4 February 2021 using the "Zoom" platform.

At the beginning of oral proceedings the respondent raised an objection pursuant to Rule 106 EPC, stating that oral proceedings by videoconference were not consistent with Article 116 EPC. Later during the oral proceedings, Mr Lane, present as a further representative of the respondent (in addition to Mr Rudge, who presented the respondent's case, and Ms Laurent), experienced technical difficulties and was not present in the videoconference during part of the oral proceedings. However, when during Mr Lane's absence Mr Rudge was asked by the chairman of the board how he wished to proceed, he requested that the proceedings continue in Mr Lane's absence. Towards the end of oral proceedings, Mr Lane stated that from what he had heard, Mr Rudge had fully argued the respondent's case, and he had nothing to add.

IX. The requests of the parties relevant to the present decision are as follows:

The appellant requested that the contested decision be set aside and that the patent be revoked in its entirety.

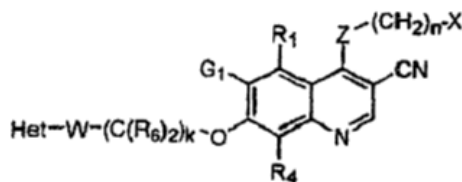
The respondent requested dismissal of the appeal and maintenance of the patent as granted.

The respondent further requested that it be recorded in the minutes that it considered the present oral proceedings by videoconference not to constitute oral proceedings in the meaning of Article 116(1) EPC,

because the parties and the board were not physically present at the proper location.

- X. Independent claim 1 of the main request (claims as granted) reads as follows:

"A compound of formula 1 having the structure:



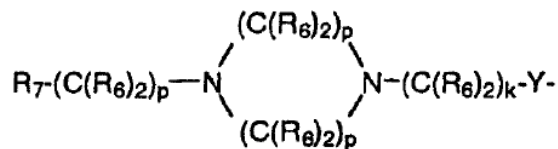
wherein:

X is phenyl optionally mono-, di-, or tri-substituted with a substituent selected from the group consisting of halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, azido, hydroxyalkyl of 1-6 carbon atoms, halomethyl, alkoxyethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, alkenoylamino of 3-8 carbon atoms, alkynoylamino of 3-8 carbon atoms, carboxyalkyl of 2-7 carbon atoms, carboalkoxyalkyl [sic] of 3-8 carbon atoms, aminoalkyl of 1-5 carbon atoms, N-alkylaminoalkyl of 2-9 carbon atoms, N,N-dialkylaminoalkyl of 3-10 carbon atoms, N-alkylaminoalkoxy [sic] of 2-9 carbon atoms, N,N-dialkylaminoalkoxy of 3-10 carbon atoms, mercapto, and benzoylamino;

Z is -NH-

R₁ and R₄ are each H;

G₁ is hydrogen, halogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, alkenyloxy of 2-6 carbon atoms, alkynyloxy of 2-6 carbon atoms, hydroxymethyl, halomethyl, alkanoyloxy of 1-6 carbon atoms, alkenoyloxy of 3-8 carbon atoms, alkynoyloxy of 3-8 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkenoyloxymethyl of 4-9 carbon atoms, alkynoyloxymethyl of 4-9 carbon atoms, alkoxyethyl of 2-7 carbon atoms, alkoxy of 1-6 carbon atoms, alkylthio of 1-6 carbon atoms, alkylsulphinyl of 1-6 carbon atoms, alkylsulphonyl of 1-6 carbon atoms, alkylsulfonamido of 1-6 carbon atoms, alkenylsulfonamido of 2-6 carbon atoms, alkynylsulfonamido of 2-6 carbon atoms, hydroxy, trifluoromethyl, trifluoromethoxy, cyano, nitro, carboxy, carboalkoxy of 2-7 carbon atoms, carboalkyl of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino of 1-4 carbon atoms, alkylamino of 1-6 carbon atoms, dialkylamino of 2 to 12 carbon atoms, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, N-alkyl-N-alkenylamino of 4 to 12 carbon atoms, N,N-dialkenylamino of 6-12 carbon atoms, phenylamino, benzylamino,



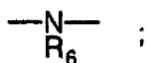
R₈R₉-CH-M-(C(R₆)₂)_k-Y-, R₇-(C(R₆)₂)₉-Y-,

R₇-(C(R₆)₂)_p-M-(C(R₆)₂)_k-Y-, or

Het-(C(R₆)₂)_q-W-(C(R₆)₂)_k-Y-;

Y is a divalent radical selected from the group consisting of

- (CH₂)_a-, -O-, and

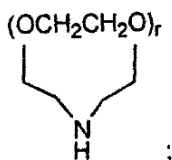


*R*₇ is -NR₆R₆, -J, -OR₆, -N(R₆)₃⁺; or -NR₆(OR₆);

M is >NR₆, -O-, >N-(C(R₆)₂)_pNR₆R₆, or >N-(C(R₆)₂)_p-OR₆;

W is >NR₆, -O- or is a bond;

Het is a heterocycle selected from the group consisting of thiomorpholine, thiomorpholine S-oxide, thiomorpholine S,S-dioxide, piperidine, pyrrolidine, aziridine, pyridine, imidazole, 1,2,3-triazole, 1,2,4-triazole, thiazole, thiazolidine, tetrazole, piperazine, furan, thiophene, tetrahydrothiophene, tetrahydrofuran, dioxane, 1,3-dioxolane, tetrahydropyran, and



wherein the heterocycle is optionally mono- or di-substituted on carbon or nitrogen with R₆, optionally mono- or di-substituted on carbon with hydroxy, -N(R₆)₂, or -OR₆, optionally mono or di-substituted on carbon with the mono-valent radicals -(C(R₆)₂)_sOR₆ or -(C(R₆)₂)_sN(R₆)₂, or optionally mono or di-substituted on a saturated carbon with divalent radicals -O- or -O(C(R₆)₂)sO-[sic];

R₆ is hydrogen, alkyl of 1-6 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 1-6 carbon atoms, carboalkyl of 2-7 carbon atoms, carboxyalkyl (2-7 carbon atoms), phenyl, or phenyl optionally substituted with one or more halogen, alkoxy of 1-6 carbon atoms, trifluoromethyl, amino, alkylamino of 1-3 carbon atoms, dialkylamino of 2-6 carbon atoms, nitro, cyano, azido, halomethyl, alkoxymethyl of 2-7 carbon atoms, alkanoyloxymethyl of 2-7 carbon atoms, alkylthio of 1-6 carbon atoms,

hydroxy, carboxyl, carboalkoxy of 2-7 carbon atoms, phenoxy, phenyl, thiophenoxy, benzoyl, benzyl, phenylamino, benzylamino, alkanoylamino of 1-6 carbon atoms, or alkyl of 1-6 carbon atoms;

R_8 , and R_9 are each, independently, $-(C(R_6)_2)_rNR_6R_6$, or $-(C(R_6)_2)_rOR_6$; J is independently hydrogen, chlorine, fluorine, or bromine;

$a = 0$ or 1 ;

$g = 1-6$;

$k = 0-4$;

n is 0 ;

$p = 2-4$;

$q=0-4$;

$r = 1-4$;

$s = 1-6$;

or a pharmaceutically acceptable salt thereof, provided that

when R_6 is alkenyl of 2-6 carbon atoms or alkynyl of 2-6 carbon atoms, such alkenyl or alkynyl moiety is bound to a nitrogen or oxygen atom through a saturated carbon atom;

and further provided that

when Y is $-NR_6-$ and R_7 is $-NR_6R_6$, $-N(R_6)_3^+$; or $-NR_6(OR_6)$, then $g = 2-6$;

when Y is $-NR_6-$, then $k = 2-4$;

when Y is $-O-$ and M or W is $-O-$, then $k = 1-4$;

when W is not a bond with Het bonded through a nitrogen atom, then $q = 2-4$; and when W is a bond with Het bonded through a nitrogen atom and Y is $-O-$ or $-NR_6-$, then $k = 2-4$."

Claim 2 is a compound claim dependent on claim 1.

Claim 3 is directed to a pharmaceutical composition comprising compounds as claimed in claims 1 or 2.

Claims 4-7 are purpose-limited second medical use claims pursuant to Article 54(5) EPC.

XI. The appellant's arguments, insofar as relevant to the present decision, may be summarised as follows:

Article 116 EPC - the legal basis for oral proceedings by videoconference

Oral proceedings by videoconference were to be considered as oral proceedings in the sense of Article 116 EPC. Since the respondent's objection could and should have been submitted earlier, at the latest in response to the communication of the registry on behalf of the board dated 15 January 2021, it was not to be admitted into the proceedings pursuant to Article 13(1) or (2) RPBA 2020. Since said objection was raised for the first time at oral proceedings, the appellant had been taken by surprise and as a consequence, was not in a position to comment on the allowability thereof. For example, the relevant parts of the *travaux préparatoires* referred to by the respondent were not on file, nor was the content thereof familiar to the appellant. Nevertheless, it would be extraordinary for the board to conclude that oral proceedings by videoconference were not consistent with Article 116 EPC, in particular since such oral proceedings had taken place before examining divisions for many years.

The discretion of the board to hold oral proceedings by videoconference

The board exercised its discretion reasonably in not postponing oral proceedings as requested by the respondent. Even accepting the respondent's argument

regarding the restricted rights of third parties due to a 10 year term of "data exclusivity" until March 2023 for the marketed compound bosutinib, approved for human use by the European Medicines Agency in March 2013, the appellant was entitled to legal certainty well in advance.

Main request (claims as granted) - Inventive step,
Article 100(a) and 56 EPC

D3 was the closest prior art. The subject-matter of contested claim 1 was distinguishing from the compounds of D3 (claim 1) by the presence of a cyano moiety (-CN) in the 3-position of the quinoline ring, while in D3, this position was unsubstituted.

It was incorrect to define the objective technical problem, as the opposition division had, as the provision of further kinase inhibitors for the treatment of *inter alia* cancer. Rather, it had not been credibly demonstrated by the evidence on file that substantially all of the claimed compounds possessed kinase inhibitory properties. The principle, established by the Boards of Appeal, that the skilled person expected minor changes in the structure of a compound to disturb biological activity (citing T 643/96 and T 488/16, and the Case Law of the Boards of Appeal, 9th edition 2019, I.D.9.8.2), was not only to be applied when assessing obviousness, but also when assessing whether it was credible that the problem was solved across the claimed scope.

The burden of proof in this regard lay with the respondent, as was the case in T 415/11, for example. The problem-solution approach required first the formulation of the objective technical problem. Only

after this had been done was the question of obviousness to be addressed. In the former, it was the respondent (patent proprietor) who bore the burden of proof to demonstrate that the distinguishing feature with regard to the closest prior art provided the alleged effects. With regard to the question of obviousness, the burden of proof lay with the appellant (opponent). This was because each party bore the burden of proof for the facts it alleged.

Even if it were to be concluded that the burden of proof lay with the appellant, it had been discharged by the evidence in D13 (page 3967, right hand column, first full paragraph; scheme 1), and more particularly D15 (page 1600, scheme 3 and right hand column, first 10 lines), which demonstrated that minor changes in a specific structure disrupted the biological activity of the claimed compounds, and led to a significant reduction in activity. Since claim 1 covered much greater substituent variation, the skilled person would expect the greater changes in structure to result in a complete loss of activity.

The respondent had not met the required burden of proof. The evidence on file in favour of acknowledging a biological effect (kinase inhibition) was insufficient to justify the claimed scope. This was demonstrated by a comparison of the variation in specific substituents displayed by the compounds of D7 for which biological data was provided, with the breadth of claim 1 in terms of the definition of those substituents. Specifically, D7 provided data for compounds in which X in claim 1 was limited to Cl, Br, F and OMe, while the definition of X in claim 1 was much broader, extending, for example, to a N,N-dialkylaminoalkoxy moiety having 10 carbon atoms.

Similarly, biological data was presented in D7 for compounds in which G_1 in claim 1 was either OMe or OEt, and for compounds in which R_6 was only H, while according to claim 1, the scope of said variable substituents was much broader.

In this regard, there was an inconsistency in the opposition division's conclusion with respect to the technical problem formulated (to include the alleged effect) on the one hand, and its conclusion on obviousness on the other hand. Specifically, the opposition division recognised inventive step on the basis that the skilled person would have had no motivation to replace the hydrogen in the 3-position of the compound of formula (I) of D3 (i.e. when $X = CH$) with a specific cyano group, and expect the same biological activity (contested decision, 2.5.5.1). This difference was however far less than the structural extrapolations required in order to conclude that the technical problem (including the effect) was solved across the entire scope of claim 1 at issue.

The extrapolation from the biological data on file to all compounds within the scope of claim 1 also could not be justified by the presence of a structure-activity relationship (SAR) based on a specific pharmacophore, since it was not sufficient to merely allege the presence thereof as the respondent had done. Rather, the existence of a SAR had to be supported by evidence.

Consequently, the technical problem was to be defined as the mere provision of chemical compounds, i.e. without reference to kinase inhibition. The solution to this problem, in line with T 939/92 and T 668/94, did not involve an inventive step.

Furthermore, as justification for the broad scope of claim 1, the opposition division had noted in the contested decision that document D3 supported a broad definition of the substituents of the compounds of formula 1 in the patent. The respondent had however at no point in opposition proceedings relied on document D3 in support of the breadth of the claimed definitions. The opposition division had therefore contravened the appellant's right to be heard pursuant to Article 113(1) EPC.

XII. The respondent's arguments, insofar as relevant to the present decision, may be summarised as follows:

Article 116 EPC - the legal basis for oral proceedings by videoconference

The oral proceedings by videoconference did not constitute oral proceedings pursuant to Article 116(1) EPC, but rather was at best to be considered as a case management discussion. A decision taken against the respondent would therefore constitute a substantial procedural violation of the right to be heard pursuant to Article 113(1) EPC on which a valid petition for review under Article 112a(1) EPC could be filed.

Specifically, the respondent submitted that:

- it was customary law, confirmed by decades of practice at the EPO, that oral proceedings pursuant to Article 116(1) EPC referred to an in-person face-to-face hearing. This was a matter of law and principle and was unaffected by the ongoing coronavirus pandemic;

- a videoconference was inferior to in-person oral proceedings, since in the former, non-verbal communication was almost impossible;
- all four paragraphs of Article 116 EPC referred to oral proceedings "before" a department of the EPO. In a judicial context, the term "before" in relation to a court referred exclusively to attendance in person;
- it was established in decision T 1012/03 that oral proceedings must take place where the relevant department of the EPO was located; the term "before" in Article 116 EPC was to be understood not only to concern the function of the department concerned, but also its location;
- the Vienna Convention on the Law of Treaties (hereinafter: "Vienna Convention") allowed the meaning of a term in an article of the EPC to be determined by supplemental means, such as the preparatory work undertaken in the drafting of the EPC, documented in the *travaux préparatoires*. In those documents, there had been discussion as to whether oral proceedings should be available in a limited manner. Despite the need for travel being acknowledged, it was nevertheless decided that oral proceedings was a right to which the parties were entitled. The discussion in this context regarding "travel" was consistent with the idea that travel would be required in order for oral proceedings to take place, and therefore that oral proceedings pursuant to Article 116 EPC were to be understood

as exclusively limited to an in-person hearing on the premises of the EPO;

- the fact that Article 116 EPC remained unamended pursuant to the act revising the Convention on the grant of European patents in 2000, despite other provisions of the EPC being amended, indicated that the legislator intended to maintain the status quo in Article 116 EPC, i.e. that oral proceedings were to be understood as in-person proceedings. For example, it was decided to amend Article 117(2)-(6) EPC 1973 to allow the Administrative Council to provide for the taking of evidence by videoconference. Since Article 116 EPC did not contain any provision allowing for oral proceedings by videoconference, the authority to amend it lay with a future EPC revision conference, and not with the President of the Boards of Appeal;

- it would be erroneous to conclude that oral proceedings by videoconference would comply with a "dynamic interpretation" of Article 116 EPC, such as that provided in Enlarged Board of Appeal decision G 3/19 for the interpretation of Article 53(b) EPC. Even if the possibility of technical problems during oral proceedings were discounted, the character of oral proceedings by videoconference was fundamentally different to that of in-person proceedings, the former being more comparable to and not very different from a telephone conference, which was certainly not compatible with oral proceedings pursuant to Article 116 EPC. In particular in final instance proceedings, oral proceedings had a critical role in deciding the outcome of a case. In view of the

need for fair treatment of the parties to the proceedings, it was not appropriate for an important final decision to be taken by videoconference;

- the adoption of Article 15a RPBA was to be considered *ultra vires* since only a revision conference could amend the original meaning of Article 116 EPC and allow for oral proceedings to take place by videoconference;
- although oral proceedings by videoconference had taken place in the past, in particular before examining divisions, this was done exclusively at the request of the party concerned. This was to be distinguished from the current situation in which oral proceedings by videoconference were mandated without the consent of one of the parties.

The discretion of the board to hold oral proceedings by videoconference

Even if it were accepted that oral proceedings by videoconference were compatible with Article 116 EPC, by enforcing such proceedings on the date originally scheduled for in-person oral proceedings, the board had not exercised its discretion in a reasonable manner. In the present case, the patent had already expired. The only rights outstanding concerned supplementary protection certificates for a specific compound (bosutinib), issued in 23 of 27 EU member states, the UK and Switzerland. In all countries the respondent had a right to regulatory data exclusivity for said compound for ten years from the first authorisation for human use, which took place in March 2013. In view of

this exclusivity, it was not possible for the appellant or third parties to commercialise bosutinib until after March 2023. Since this date was after the date to which in-person oral proceedings may have been postponed according to the communication of the board dated 15 January 2021 (i.e., 2022), there was no urgent need to have the case heard as soon as possible. There was therefore no need to enforce oral proceedings by videoconference against the request of the respondent.

Main request (claims as granted) - Inventive step,
Article 100(a) and 56 EPC

D3 was the closest prior art. The subject-matter of contested claim 1 was distinguishing from the compounds of D3 (claim 1) by the presence of a cyano moiety (-CN) in the 3-position of the quinoline ring, while in D3, this position was unsubstituted.

The biological data (kinase inhibition) disclosed in D7 and D23 demonstrated that a reasonable structural selection of the claimed compounds displayed kinase inhibitory activity. Claim 1 encompassed a relatively precise structural definition of a specific pharmacophore to which the stated biological activity could be attributed, and represented a reasonable extrapolation of these examples and biological data, based on structure-activity relationship (SAR) analysis for the pharmacophore identified. No evidence had been brought forward by the appellant to challenge this SAR determination.

Claim 1 did not comprise any features demanding a certain level of kinase activity. Rather the technical problem was to be defined to include the mere provision

of compounds displaying active kinase inhibition. The fact that some variation was observed in the biological activity of similar compounds falling within the scope of claim 1 did not serve as evidence that structurally more remote compounds also falling within the scope of claim 1 would be inactive. Such an argument amounted to an unsubstantiated assertion.

Furthermore, it was established case law that the burden of proof in this regard lay with the appellant, and it had not been discharged.

The technical problem was thus the provision of further kinase inhibitors for the treatment of *inter alia* cancer.

The solution provided by the claims was not obvious in view of D3. The 3-position of the quinoline ring system of the compounds of formula (I) of D3 (claim 1; X = CH) was the only position on the ring system at which substitution was not permitted. The skilled person was thus taught away from the introduction of any substituent at that position, and even more so from substitution by a strongly electron withdrawing moiety such as a cyano group. The subject-matter of claim 1, and by analogy, claims 1-7, therefore involved an inventive step.

Reasons for the Decision

1. Article 116 EPC - the legal basis for oral proceedings by videoconference

Hereinafter, the term "in-person oral proceedings" refers to oral proceedings in which both the party or parties and the board (or department of the EPO) are physically present in the same room on the premises of the EPO. Furthermore, in addressing the question of whether oral proceedings by videoconference are consistent with the right to oral proceedings pursuant to Article 116 EPC, it is assumed that said proceedings are publically accessible as required by Article 116(4) EPC.

1.1 Introduction

The respondent submitted that the oral proceedings, held on 4 February 2021 by videoconference (using the "Zoom" videoconferencing platform) did not constitute oral proceedings pursuant to Article 116(1) EPC, but rather was at best to be considered as a case management discussion.

Article 116 EPC comprises four paragraphs, the first of which reads as follows:

*"Oral proceedings shall take place either at the instance of the European Patent Office if it considers this to be expedient or at the request of any party to the proceedings. However, the European Patent Office may reject a request for further **oral proceedings before the same department** where the parties and the*

subject of the proceedings are the same." (emphasis added by the board)

For the purposes of this discussion, it is sufficient to note that similarly to paragraph (1), paragraphs (2)-(4) of Article 116 EPC also refer to "*oral proceedings ... before [a department of the EPO]*".

1.2 History of oral proceedings by videoconference at the EPO: the practice before the first instance

Oral proceedings by videoconference first became available in examination proceedings and were announced as a new service, on request, with the publication of "*Information concerning interviews and oral proceedings to be held as a video conference*" (OJ EPO 1997, 572). In order to avail of the service, applicants (or their representatives) were required to file a waiver declaration according to which the "*right to oral proceedings being held in the traditional form at the EPO premises*" was irrevocably renounced. Later, updated information concerning oral proceedings by videoconference was published (OJ EPO 2006, 585; OJ EPO 2012, 354; OJ EPO 2018, A96). The updated information differed from the initial announcement in 1997 *inter alia* in that the practice of requiring a waiver declaration was abandoned, and it was stated that "*[o]ral proceedings held by videoconference are equivalent to oral proceedings held in the traditional manner on the premises of the EPO. Consequently a request for further oral proceedings before the same department (whether by videoconference or any other form) may be rejected where the parties and the subject of the proceedings are the same (Article 116(1) EPC)*".

In a decision of the President of the EPO dated 1 April 2020 (OJ EPO 2020, A39), it was stipulated that oral proceedings before examining divisions were to be held by videoconference, and on the premises of the EPO only if there were serious reasons not to hold a videoconference, such as the need to take evidence (see also OJ EPO 2020, A40). With a decision of the President of the EPO and accompanying notice (OJ EPO, 2020, A41 and A42), the launch of a pilot project for oral proceedings by videoconference before opposition divisions, with the agreement of all parties, was announced. With the decision of the President of the EPO dated 10 November 2020 and accompanying notice (OJ EPO 2020, A121 and A122), it was *inter alia* announced that the pilot project would be extended until 15 September 2021, and as previously decided for examination proceedings, that oral proceedings before opposition divisions were to be held by videoconference, and on the premises of the EPO only if there were serious reasons not to hold a videoconference.

1.3 History of oral proceedings by videoconference at the EPO: the practice before the Boards of Appeal

The approach of the first instance, according to which oral proceedings by videoconference were considered equivalent to oral proceedings on the premises of the EPO (and thus as oral proceedings pursuant to Article 116 EPC), has to date not been challenged in a case leading to a decision of the Boards of Appeal. This is not surprising given that until recently (*supra*), oral proceedings by videoconference in both examination and opposition proceedings could only take place with the consent of the parties.

By means of a series of communications published on the website of the Boards of Appeal regarding measures adopted due to the coronavirus pandemic (dated 6, 15, and 25 May, 29 July and 19 October 2020), it was announced that oral proceedings before the Boards of Appeal could take place by videoconference, with the agreement of the parties concerned. Provisions for the attendance of members of the public pursuant to Article 116(4) EPC were also addressed.

Decision T 1378/16 of 8 May 2020 concerned an appeal from a decision of an examining division to refuse a European patent application. This was the first case before the Boards of Appeal in which oral proceedings were held by videoconference (reasons, 1.1), and was held with the agreement of the appellant (reasons, 1.5). It was noted therein that in the past, the Boards had rejected requests to hold oral proceedings by videoconference on the basis that a general framework, in particular, provisions for suitable videoconference rooms and the attendance of the public, were lacking (reasons, 1.2, first paragraph). However, it was also noted that earlier decisions of the Boards had held that Article 116 EPC did not mandate that oral proceedings take place with the physical presence of the parties, and that therefore it was within the discretion of the board concerned to decide whether or not to select this form for the parties' oral submissions (reasons, 1.2, second paragraph).

The board in T 1378/16 endorsed this earlier interpretation of the legal framework and stated (reasons, 1.3):

"Hence, oral proceedings held by videoconference are not excluded by the EPC and fulfill the requirements

for holding oral proceedings within the meaning of Article 116 EPC. The EPC only requires that the public character of the proceedings be ensured (Article 116(4) EPC). The form in which parties present orally their arguments - with or without physical presence - is not predetermined by Article 116 EPC."

A user consultation on an amendment to the Rules of Procedure of the Boards of Appeal was published on the website of the Boards of Appeal on 13 November 2020. Proposed Article 15a RPBA stipulated *inter alia* that *"the Board may decide to hold oral proceedings pursuant to Article 116 EPC by videoconference if the Board considers it appropriate to do so, either upon request by a party or of its own motion"* (paragraph (1)). Thus, according to this provision, the express agreement of the parties to the proceedings was no longer required ("Explanatory remarks" accompanying the proposed text, point 2). According to said remarks, proposed new Article 15a RPBA fell within the legal framework of Article 116 EPC (points 4-7): neither Article 116 EPC nor any other article of the EPC or the RPBA 2020 stipulated that parties to the proceedings, their representatives or members of the board must be physically present in the oral proceedings room. Therefore, according to these explanatory remarks, neither the EPC nor the RPBA 2020 excluded oral proceedings by videoconference.

In a communication published on the website of the Boards of Appeal dated 15 December 2020, reference was made to the adoption by the Boards of Appeal Committee of new Article 15a RPBA (BOAC/16/20). It was stated in said communication that:

"From 1 January 2021 boards may conduct oral proceedings by VICO even without the agreement of the parties concerned, as has now been made clear in the new Article 15a RPBA adopted by the Boards of Appeal Committee. Since the new provision merely clarifies an existing possibility, boards may adapt their practice as regards dispensing with the need to obtain the agreement of the parties concerned even before the date of its entry into force."

1.4 The present case

As far as the board is aware, the present decision concerns the first case before the Boards of Appeal for which oral proceedings by videoconference were held without the agreement of a party to the proceedings.

The board had thus to decide whether oral proceedings by videoconference constituted oral proceedings pursuant to Article 116 EPC. In this context, the arguments concerning proposed Article 15a RPBA do not need to be addressed, since on the date of the oral proceedings at which the present decision was taken, it had not entered into force.

Furthermore, the board is aware of interlocutory decision T 1807/15, in which the following question was referred to the Enlarged Board of Appeal:

"Is the conduct of oral proceedings in the form of a videoconference compatible with the right to oral proceedings as enshrined in Article 116(1) EPC if not all of the parties to the proceedings have given their consent to the conduct of oral proceedings in the form of a videoconference?"

The present decision, taken at oral proceedings held on 4 February 2021, predates both the referring decision (12 March 2021) and the oral proceedings during which the parties were informed of the intention of the referring board to refer a question to the Enlarged Board of Appeal (8 February 2021). As a consequence, the referring decision is not relevant to the present decision, and is not addressed in the following.

1.5 The interpretation of Article 116 EPC

It is established jurisprudence of the Enlarged Board of Appeal that the principles of interpretation provided for in Articles 31 and 32 Vienna Convention are to be applied when interpreting the EPC (e.g. G 2/12, reasons, V.(1)-(5); G 5/83, reasons, 1-6).

1.5.1 According to Article 31(1) Vienna Convention, "*a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose*".

As noted in G 2/12 (reasons, V.(4)), this objective method of interpretation is directed to establishing the authentic meaning of the relevant provision and its legal terms. The starting point for interpretation is thus the wording, i.e. the objective meaning, regardless of the original subjective intention of the contracting parties. To this end, the provisions are to be read in their context so that they comply with the object and purpose of the EPC.

1.5.2 Article 116 EPC states that "*[o]ral proceedings shall take place ...*". It does not define in any way the exact form of those proceedings, other than the

proceedings being oral in nature. In particular, it does not explicitly exclude oral proceedings by videoconference.

In the board's view, a prerequisite of oral proceedings is that the parties can see the members of the board and vice versa. This distinguishes oral proceedings pursuant to Article 116 EPC from a telephone conference in which the board members and parties are not visible to each other. At the same time, it must be possible in real time for the board to interrupt or question the parties where necessary. This distinguishes oral proceedings from an exchange by letter, fax or E-mail, where an exchange of views in real time, i.e. essentially simultaneously, is not possible.

Apart from the above constraints, the form in which the parties orally present their arguments - with or without physical presence - is not predetermined by Article 116 EPC (in agreement with T 1378/16, reasons, 1.3).

- 1.5.3 In this context, the respondent submitted that a videoconference was inferior to in-person oral proceedings since in the former, non-verbal communication was almost impossible.

The board disagrees. It is indeed a fact that oral proceedings by videoconference are *different* to oral proceedings in-person. In particular, it is indisputable that the transmission and perception of non-verbal communication signals ("body language") are not the same. The board does not deny that some forms of non-verbal communication (eye contact, for example) are not possible during a videoconference. On the other hand, it is not correct to state, as the respondent

did, that non-verbal communication is almost impossible. In fact, in the present proceedings, the faces and therefore the facial expressions of the participants could be clearly perceived on screen. If desired, the technical possibility existed to expand a specific participant's video feed to appear on the entire screen, thereby enhancing visibility.

Furthermore, in-person oral proceedings pursuant to Article 116 EPC accommodate different settings with regard to the visibility of the parties to the board and vice-versa. For instance the visibility of the board members' facial expressions will vary depending on the spatial distance of the representative(s) from the board members in the oral proceedings room. The extent of this variation, accommodated by Article 116 EPC for in-person oral proceedings, is not necessarily narrower than the difference between in-person and videoconference oral proceedings.

Hence, while accepting that there are differences in the transmission and perception of non-verbal communication signals, the board is not convinced by the argument that said differences necessarily render communication inferior or degraded, let alone degraded to an unacceptable level in oral proceedings by videoconference compared to in-person oral proceedings.

Therefore, the presence of differences between oral proceedings by videoconference and in-person oral proceedings as such is not a valid ground for considering oral proceedings by videoconference to be inconsistent with the right to oral proceedings pursuant to Article 116 EPC.

The relevant issue in the view of the board is not the identification of the differences between in-person oral proceedings and oral proceedings by videoconference *per se*, but concretely, the identification of a **causal relationship** between a specific difference or differences and a non-compliance with the object and purpose of oral proceedings pursuant to Article 116 EPC. The respondent in the present case did not identify any such relationship.

- 1.5.4 The respondent submitted that all four paragraphs of Article 116 EPC referred to oral proceedings "before" a department of the EPO, and that in a judicial context, the term "before" in relation to a court referred exclusively to attendance in person. This view was supported by decision T 1012/03.

The board disagrees. The term "before" in a judicial context is to be understood as "under the consideration of, or being judged or decided by". This interpretation is supported by many other provisions of the EPC in which the same term is employed in relation to proceedings before the EPO or a department thereof, none of which are to be understood as requiring physical presence, for example:

Article 14(2) EPC: "*Throughout the proceedings before the European Patent Office, such translation may be ...*";

Article 60(3) EPC: "*In proceedings before the European Patent Office, the application shall be deemed ...*";

Article 70(1) EPC: *"The text of a European patent application ...shall be the authentic text in any proceedings before the European Patent Office ..."*;

Article 114(1) EPC: *"In proceedings before it, the European Patent Office shall examine ..."*;

Article 115 EPC: *"In proceedings before the European Patent Office, following the publication ..."*;

Article 123(1) EPC: *"The European patent application ... may be amended in proceedings before the European Patent Office ..."*; and

Article 134 EPC, entitled *"Representation before the European Patent Office"*.

- 1.5.5 Decision T 1012/03, cited by the respondent to support its interpretation of the term "before", does not deal specifically with the present issue but with the question of whether a party is entitled to having oral proceedings held in Munich rather than in The Hague. Although the respondent only cited the decision in general, the board understands its arguments as a reference to points 37 and 38 of the reasons. Here, the deciding board concluded in point 37, second paragraph, that *"the word "before" [in Article 116 EPC] also implies a location "where" the proceedings have to be carried out, namely at least at the place where the relevant department is located"*.

However, the context of this conclusion must be taken into account. In point 37 of the reasons, first paragraph, the board set out the following:

*"The various expressions used in paragraphs 1 to 4 of Article 116 EPC, namely "before the same department", "before the Receiving Section", "before the Receiving Section, the Examining Divisions and the Legal Division" and "the department before which the proceedings are taking place" **can be read as a reference to the function of the department or Division as a deciding body.**" (emphasis added by the present board)*

This interpretation is similar to that provided by the present board, above.

Thus the interpretation of the term "before" in T 1012/03 to imply a particular location was a consequence of the perceived necessity, in the context of the decision, for the division to be located at a specific place. There is no indication in T 1012/03 that in arriving at this interpretation, the deciding board considered, and therefore excluded, the possibility of holding oral proceedings by videoconference. In the case at hand the board was merely required to determine whether the appellant's request to have oral proceeding held in Munich had any legal basis, and if not, whether The Hague was the correct place for holding oral proceedings. Thus, the specific question was exclusively one of geographical location which did not require the consideration of oral proceedings by videoconference. The context in which decision T 1012/03 was taken is thus entirely different from that underlying the question to be dealt with in the present case.

- 1.5.6 A similar conclusion can be drawn in relation to Enlarged Board of Appeal decision G 2/19 (OJ EPO 2020,

A87). In that decision, it was decided that oral proceedings before the Boards of Appeal at their site in Haar (instead of in the city of Munich) did not infringe Articles 113(1) and 116(1) EPC (order, 2). In the reasons for the decision (C, IV, final paragraph) it was stated in connection with the location of oral proceedings that:

"Die Nutzer des Angebots der Europäischen Patentorganisation werden zwar darauf vertrauen dürfen, dass die Organe des Europäischen Patentamts ihre Handlungen nicht an beliebigen dritten Orten vornehmen"

(Translation from OJ EPO 2020, A87: *"Users of the European Patent Organisation's services can legitimately expect that the European Patent Office's departments will not perform acts at whatever other place they choose"*).

However, this statement was made in the context of the potential choice of a *geographical* location being perceived as adversely affecting the exercising of parties' rights (reasons, C, IV, point 1, first paragraph). This is a similar context to that addressed in T 1012/03, but different to that underlying the present case. In oral proceedings by videoconference, the potential for location to adversely effect the parties' rights does not arise: oral proceedings by videoconference do not take place at a specific geographical location, or alternatively, could be considered to be "located" everywhere with access to a reliable internet connection of sufficient bandwidth.

- 1.5.7 The respondent also argued that traditionally, oral proceedings at the EPO had until recently, for the most part, been held with the physical presence of the

parties before the department in question. This is however not sufficient grounds to conclude that oral proceedings by videoconference are not in line with Article 116 EPC. Indeed, until mid-2020, requests to hold oral proceedings by videoconference were refused by the Boards on the grounds that a general framework, including an appropriate technical set-up, was not in place (e.g. T 1266/07, reasons, 1.1-1.3).

Thus, taking the ordinary meaning of the terms present in Article 116 EPC into account (point 1.5.1, above), it cannot be concluded that oral proceedings by videoconference infringe the right to oral proceedings as defined in this Article.

- 1.5.8 According to Article 32 Vienna Convention, supplementary means of interpretation including the preparatory work of the treaty (the *travaux préparatoires*) may serve to confirm the meaning resulting from the application of Article 31, or to determine the meaning when the interpretation according to Article 31 leaves the meaning ambiguous or obscure; or leads to a result which is manifestly absurd or unreasonable.

In this respect, the respondent submitted that according to the *travaux préparatoires* for Article 116 EPC (or more precisely, Article 116 EPC 1973), a discussion took place regarding travel for the purpose of oral proceedings. This was consistent with the idea that travel would be required, and therefore that oral proceedings pursuant to Article 116 EPC were to be understood as exclusively limited to in-person proceedings.

The respondent did not support its arguments by reference to specific passages within the large body of documentation available. The board is aware of only one such reference, specifically in the *travaux préparatoires* IV/6514/61-D (pages 82-83) entitled "*Erörterungen zu Artikel 96 a) des Vorentwurfs*". In answering the question of whether oral proceedings should be obligatory or optional, it was stated (page 83, second paragraph):

*"Die Gruppe genehmigt einstimmig die fakultative Lösung. Die obligatorische Lösung scheidet nämlich an den Schwierigkeiten, die **sich aus den grossen Entfernungen im Geltungsbereich des europäischen Patents**, aus den hohen Kosten und aus den Sprachproblemen ergeben."* (emphasis added by the board)

Translation by the board: "*the group unanimously approves the optional solution. The obligatory solution fails due to the difficulties **arising from the great distances within the area of validity of European patents**, from the high costs and from language problems"*

This meeting took place in Brussels on 13 November 1961. The cited passage demonstrates that at that time, the holding of oral proceedings was associated with the need for travel. Thus, the assumption was that oral proceedings would take place in-person. However, it cannot be deduced from this conclusion that oral proceedings by videoconference in its present-day form would not have been found acceptable by the legislator. It is not surprising that in 1961 only in-person proceedings were contemplated. Although the board is not aware of whether a videoconference was technically possible on that date,

it can be stated with certainty that the technology was not sufficiently accessible, reliable, cost-efficient and of sufficient quality to the extent that its consideration as a feasible alternative to in-person oral proceedings could reasonably have been contemplated. Indeed, as set out above, requests for oral proceedings by videoconference before the Boards of Appeal before mid-2020 were generally refused on the grounds that an appropriate technical set-up was lacking. Thus, this argument is not decisive in determining whether oral proceedings by videoconference are consistent with Article 116 EPC.

The *travaux préparatoires* to Article 116 EPC 1973 therefore neither confirm nor contradict the board's interpretation of Article 116 EPC provided above.

- 1.5.9 As set out above, the legislator during preparations for EPC 1973 would not have contemplated oral proceedings by videoconference, and therefore would not have seen any necessity, had it so intended, to formulate Article 116 EPC 1973 such as to explicitly limit oral proceedings to in-person proceedings. However, the situation at the time of the Revision Conference in 2000 was different. At the time of the preparatory work (1998-2000), oral proceedings by videoconference were not only an accessible technical reality, but as noted above, had been proposed by the President of the EPO as an alternative to in-person oral proceedings in examination (OJ EPO 1997, 572). If the legislator revising the EPC had intended for Article 116 EPC to exclude oral proceedings by videoconference, it is implausible that it would decide not to amend the provision accordingly and in particular, accept the provision as it stood, not comprising any explicit limitation to in-person oral

proceedings, or at least being open to interpretation. To the board, it is much more plausible that the legislator did not intend any limitation in Article 116 EPC to a specific form for oral proceedings, and hence, saw no need to amend it. This serves as an indirect pointer to the interpretation of Article 116 EPC provided by the board above. In this context, it is not irrelevant to note that where the legislator had deemed procedural limitations necessary, these were explicitly set out in the EPC, for example in Article 117(2)-(6) EPC 1973 concerning procedures for the taking of evidence.

The respondent argued that the fact that Article 116 EPC was unamended in the Act revising the Convention on the Grant of European patents in 2000, was an indication that the legislator intended to maintain the status quo in Article 116 EPC that oral proceedings were to be understood as in-person proceedings. Article 117 EPC 1973, for example, was amended by transferring procedural provisions present in this Article to the Implementing Regulations, thereby allowing the Administrative Council to subsequently provide for the taking of evidence by videoconference. Hence, the authority to amend the meaning of Article 116 EPC lay with a future EPC revision conference, and not with the President of the Boards of Appeal.

The board does not agree. The situation for Article 117 EPC 1973 was different in that unlike Article 116 EPC 1973, it contained specific procedural provisions. In fact, in the preparatory documents for the revision of the EPC 2000, concerning the revision of Article 117 EPC 1973 (MR/2/00, page 149), it was stated that "[n]ew Article 117(2) EPC replaces the

present Article 117(2)-(6) EPC. The details of the procedure for taking evidence are transferred to the Implementing Regulations." Hence, no conclusion regarding the interpretation of Article 116 EPC can be drawn from the way in which Article 117 EPC 1973 was amended in the EPC 2000.

1.5.10 There is also no need for the board to seek further means of interpretation. Article 125 EPC is not concerned with the interpretation of the EPC but serves merely as a "fill-in" in case of missing procedural provisions (G 2/12, reasons, V, (1)). As set out above, Article 116 EPC is understood not to impose any limitation on the specific form of oral proceedings, and there is therefore nothing to "fill". Furthermore, the board doubts whether procedural law in the contracting states is sufficiently developed and harmonised with regard to the status of oral proceedings by videoconference to the extent that the latter could be considered as one of the "principles of procedural law generally recognised in the contracting states" (cf. Article 125 EPC).

1.5.11 Regarding a "dynamic interpretation" of Article 116 EPC, as addressed by the respondent, the board is of the following view. The "dynamic interpretation" is a further approach to construing *inter alia* a legal provision of the EPC. This method of interpretation could come into play where considerations had arisen since the Convention was signed which might give reason to believe that a literal interpretation of the provision's wording would conflict with the legislator's aims, and might thus lead to a result which diverges from the wording of the law (G 3/19, reasons, XXII; G2/12, reasons, VIII, (2), 1, (1); G3/98, reasons, 2.5, final paragraph). As noted

in the foregoing, the board finds that oral proceedings by videoconference are consistent both with the literal interpretation and with the legislative intent underlying Article 116 EPC 1973 and 2000. The question of whether a dynamic interpretation of Article 116 EPC has to be considered therefore does not arise.

1.5.12 Finally, the board does not consider the potential for problems of a technical nature to play a role in determining whether oral proceedings by videoconference are consistent with the right to oral proceedings pursuant to Article 116 EPC. If technical difficulties (e.g. related to videoconferencing software, or due to a poor internet connection) were to prevent a party from adequately participating in oral proceedings by videoconference, it would be incumbent on the board to seek a solution, or alternatively, postpone oral proceedings to a future date, if necessary. How to proceed in such a situation would be at the discretion of the board, with due care for the parties' right to be heard pursuant to Article 113(1) EPC.

1.6 In conclusion, oral proceedings by videoconference are consistent with the right to oral proceedings pursuant to Article 116 EPC.

1.7 The board's discretion to hold oral proceedings by videoconference

As a consequence of the above conclusion regarding the interpretation of Article 116 EPC, the discretion to hold oral proceedings by videoconference lies with the board.

The respondent argued that even if it were accepted that oral proceedings by videoconference were compatible with Article 116 EPC, by enforcing oral proceedings by videoconference on the date originally scheduled for in-person oral proceedings, the board had not exercised its discretion in a reasonable manner. The respondent presented arguments (XII, above) according to which there was no urgent need for the case to be heard as soon as possible.

The board does not agree with the respondent's position. In view of the worldwide coronavirus pandemic and related international travel restrictions, ongoing on the date scheduled for oral proceedings, it was not possible for either party to the present proceedings to travel to Munich to attend in-person oral proceedings. In the communication of the registry dated 15 January 2021, sent on behalf of the board, it was stated that in the midst of a worldwide pandemic, it was incumbent on the board to maintain access to justice for all parties concerned. This applied in particular in view of the delay that would be incurred, were proceedings to be postponed.

The board maintains the view that such a delay would be both unacceptable and unnecessary. In particular, since oral proceedings by videoconference are consistent with the right to oral proceedings pursuant to Article 116 EPC, there was no need for oral proceedings to be rescheduled to a later date as a result of travel restrictions.

Furthermore, the respondent's argument that the case was not urgent is not convincing. The board agrees with the appellant that even accepting the respondent's

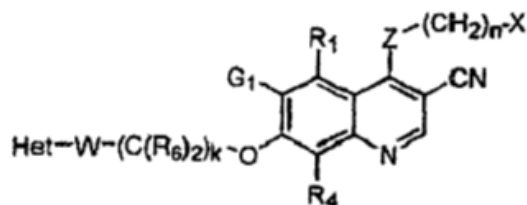
submission regarding the rights of third parties being restricted due to a 10 year term of "data exclusivity", i.e. until March 2023, the appellant has an interest in legal certainty well in advance of that date.

Consequently, the board exercised its discretion to hold oral proceedings by videoconference in a reasonable way.

Main request (patent as granted) - Inventive step,
Articles 100(a) and 56 EPC

2. The appellant's statement of grounds of appeal is based solely on the ground for opposition under Article 100(a) EPC in combination with Article 56 EPC.

Claim 1 of the main request (X, above), in summary, is directed to quinoline compounds of formula 1 having the structure



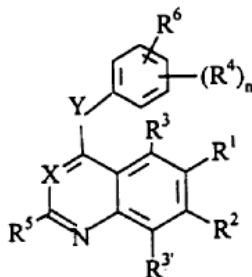
wherein the definition of the variable substituents in said formula are as recited in said claim. Some of the apparent variables do not in fact vary. Specifically, Z is $-NH-$, n is 0, X is phenyl, optionally mono-, di- or tri-substituted with a substituent chosen from a list, and R_1 and R_4 are H.

3. Closest prior art

3.1 The parties were in agreement that D3 represented the closest prior art, and the board sees no reason to differ.

3.2 D3 discloses compounds comprising a quinazoline or a quinoline ring system (claim 1; quinazoline when X = N, quinoline when X = CH), intended for the same purpose as the compounds of the contested patent (claim 1), namely as protein tyrosine kinase inhibitors useful in treating cancer (D3, page 1, first and third paragraphs; patent, paragraph [0001]).

3.3 The compounds of D3 are defined in claim 1 by formula (I):



4. Distinguishing feature

It was accepted by both parties that the distinguishing feature of the compounds of contested claim 1 was the presence of a cyano moiety (-CN) in the 3-position of the quinoline ring (the -CN moiety in the structure on the previous page). In the compounds of formula (I) of D3 depicted above, the 3-position corresponds to the position of the variable X. In claim 1 of D3, X is defined as either N or CH. When X is CH, the compounds of formula (I) of D3 comprise a quinoline ring, **unsubstituted** (C-H) in the 3-position, unlike the CN-substitution (C-CN) required by contested claim 1.

5. The objective technical problem

5.1 According to the patent, and similarly to the compounds of D3, the compounds of the invention are said to be tyrosine kinase inhibitors (patent, paragraphs [0002] - [0006]) useful in the treatment of *inter alia* cancer (paragraph [0001]).

5.2 According to the respondent, the objective technical problem was the provision of further kinase inhibitors for the treatment of *inter alia* cancer. It was a matter of dispute between the parties whether this problem was solved over the entire scope of claim 1.

5.3 It must therefore be determined whether the data addressed below render it sufficiently credible that biological activity as tyrosine kinase inhibitors is exhibited across the scope of claim 1.

5.4 It is undisputed that the patent comprises examples falling within the scope of claim 1, and specifically describes further named compounds also falling within its scope (paragraph [0212]). It is also undisputed that the patent, although providing biological activity data on the inhibition of specific kinases and specific tumour growth for some exemplified compounds (tables 1-5), lacks any biological activity data for compounds falling within the scope of contested claim 1.

5.5 D6, D7 and D23 are declarations comprising data, filed by the respondent during opposition proceedings and relied upon in appeal.

D6 provides a list of examples and named compounds disclosed in the patent and falling within the scope of

claim 1 at issue (Annex 1). Annex 2 of D6 lists additional compounds A-Z and AA-NN, prepared by the respondent, which although encompassed within the scope of claim 1 at issue, were not prepared, exemplified, nor mentioned in the patent. Annex 3 details the characterisation of the structure of the compounds of Annex 2.

D7 describes *inter alia* in Annex 1 biological activity data (IC₅₀; TNIK kinase assay) for the compounds of Annex 1 of D6, namely for those compounds exemplified or mentioned in the patent falling within the scope of claim 1. In Annexes 2, 3 and 3A further IC₅₀ data is provided for the further compounds listed in Annex 2 of D6, falling within the scope of claim 1 but neither exemplified nor mentioned in the patent.

D23 discloses further Abl1 and Src kinase inhibitory data for compounds falling within the scope of claim 1.

5.6 It was not disputed by the appellant that the compounds tested in D7 and D23 exhibited biological activity as kinase inhibitors.

5.7 The appellant argued that it was not credible that substantially all of the claimed compounds displayed the alleged activity and that the burden of proof in this regard lay with the respondent.

This argument was based on a comparison of the variation in specific substituents displayed by the compounds of D7 for which biological data was provided, with the breadth of claim 1 in terms of the definition of those substituents, in particular (but not exclusively) X, G₁ and R₆ (for details see XI, above) as well as the arguments that:

- (a) it was generally known that minor changes in structure were expected to disrupt biological activity (Case Law of the Boards of Appeal, 9th Edition, I.D.9.8.2, and in particular decisions T 643/96 and T 488/16); and

- (b) D13 and D15 (page 1600, scheme 3 and right hand column, first ten lines) provided evidence that a minor structural change led to significant reduction in activity: for example a large difference in kinase inhibitory activity was observed for structurally similar compounds 2 and 24 in table 1 of D15. Since claim 1 covered much greater substituent variation, the skilled person would expect a complete loss of kinase inhibition activity if the changes in structure were greater than those displayed in D15.

With regard to both (a) and (b), the board notes that the data in D7, D23 and D15 all confirm that minor structural changes affect the kinase inhibitory activity of compounds falling within the scope of claim 1. Indeed, this would appear to be part of the common general knowledge for the skilled person in the field of drug discovery. However, it was not contested by the appellant that all of said compounds exhibited some level of kinase inhibitory activity. Hence, D15 merely demonstrates that one specific minor structural change (table 1, compound 2 versus compound 24) leads to changes in the level of inhibition of the enzyme tested from a nanomolar to a micromolar level. However, the argument that more substantial structural changes will have an even greater effect to the extent that **no kinase inhibitory activity** will be displayed can only

be seen as unsubstantiated speculation, without any evidence to support it.

In this regard D13, also cited by the appellant in support of its argument, is less relevant than D15 since the compounds disclosed therein and relied upon by the appellant in its arguments (page 3967, right hand column, first full paragraph; scheme 1) do not fall within the scope of claim 1. In this respect, the appellant did not rely on D13 in its oral arguments.

- 5.8 The appellant, citing T 415/11 (Case Law of the Boards of Appeal, 9th edition 2019, I.D.10.9), furthermore submitted that the burden of proof lay with the respondent (patent proprietor) to demonstrate that said activity was achieved across the entire scope of the claim.

The board disagrees. The relevant passage of T 415/11 (reasons, 46.1) reads as follows:

"When the credibility that a technical effect is achieved by substantially all claimed compounds is at issue and in a situation where, it is prima facie unlikely that this is credible, it is ... not the opponent..., but the patentee... who has the burden of proof that the effect is achieved".

However, in T 415/11, **no evidence** had been presented by the patent proprietor supporting the alleged effect (reasons, 45.1 and 46). A similar situation was addressed earlier in that decision in which the problem to be solved included improved stability (reasons, 9 and 10). There, it was concluded that the comparative examples in the patent were not directed to compositions of the closest prior art, and thus there

was also **no evidence** of the alleged improvement. Thus the facts underlying that case stand in contrast to those of the present case in which biological data has been provided (supra) for a significant number of compounds falling within the claimed scope.

5.9 Furthermore, it is established jurisprudence of the Boards of Appeal, as noted by the respondent, that each party bears the burden of proof for the facts it alleges. Hence, in opposition proceedings, if an opponent argues a lack of inventive step under Article 100(a) EPC, it is for the opponent to prove it. Therefore, the burden of proof normally lies with the opponent (here: appellant) and does not automatically shift to the patent proprietor (here: respondent) on appeal. It is not sufficient in opposition proceedings for the opponent to impugn a granted patent with an assertion which has not been substantiated (Case Law of the Boards of Appeal, 9th edition 2019, III.G.5.1.1, sixth paragraph; III.G.5.2.1, fourth paragraph).

5.10 In the present case **no evidence** has been submitted by the appellant casting doubt on whether the compounds falling within the scope of claim 1 possess kinase inhibitory activity.

5.11 The respondent submitted that the biological data disclosed in D7 and D23 showed that a reasonable and representative structural selection of the claimed compounds displayed a kinase inhibitory effect. Claim 1 encompassed a relatively precise structural definition of a specific pharmacophore to which the stated biological activity could be attributed, and was a reasonable extrapolation of these examples and biological data, based on structure-activity

relationship (SAR) analysis for the pharmacophore identified.

5.12 In the absence of any evidence to the contrary, the board can only agree (see for example the tables in annexes 1, 2 ,3 and 3A of D7). In T 939/92 and T 668/94, cited by the appellant to argue that the problem was to be seen as the mere provision of compounds, the situation was different to the present one, as addressed in the following.

5.12.1 In T 939/92 ("AgrEvo"), claim 1 was directed to triazole compounds which could be optionally substituted - by anything. The board concluded that the test results presented for some compounds did not constitute sufficient evidence that substantially all claimed compounds possessed the alleged herbicidal activity, the reason being that there was no proven common general knowledge showing that the type of substituent would be irrelevant to said activity (reasons, 2.6.2). On the other hand, it was also stated that *"the Board finds that reasonable predictions of relations between chemical structure and biological activity are in principle possible, but that there is a limit beyond which no such prediction can be validly made"* (reasons, 2.6.2), and

"In the Board's judgement, this limit has to be established on the basis of the available facts and the evidence submitted for this purpose in each particular case" (reasons, 2.6.3).

Furthermore, the board stated that

*" ... if it is evident that the number of compounds claimed is such that it is **inherently unlikely** that all*

of them, or at least substantially all of them, will possess the promised activity, then the burden of proof of that fact ... can indeed rest only upon the shoulder of the person alleging it." (reasons, 2.6.1, emphasis added by the deciding board).

This final statement is similar to that cited in decision T 415/11, cited by the appellant (supra) to argue that the burden of proof lay with the respondent.

In contrast to the situation in T 939/92, contested claim 1 does not comprise open-ended definitions and as stated above, represents a reasonable generalisation of the compounds for which biological data was provided. Hence, the respondent has discharged its burden of proof in this regard.

5.12.2 T 668/94 related to compounds useful as fungicides and plant growth regulators (reasons, 8.1). It had been explicitly stated in the specification that only some of the claimed compounds possessed the latter activity, which was thus disregarded in the formulation of the technical problem (reasons, 8.3, second paragraph). The use as a fungicide was recognised as being solved despite an objection to the presence of "optionally substituted" open-ended definitions in the claim. This issue was however not addressed since the solution was in any case seen as obvious (reasons, 8.3, first paragraph). Hence, also this decision does not support the appellant's position.

5.13 It follows from the foregoing that the objective technical problem is as formulated by the respondent, namely the provision of further kinase inhibitors for the treatment of *inter alia* cancer.

6. Obviousness

6.1 The appellant argued that D3, although not explicitly disclosing the possibility of substitution at the 3-position when the ring system is quinoline (X = CH), must be read taking into account the intention of the patent drafter at the time, whose aim was not just to draft the application in terms of the invention, but also having other purposes in mind, such as the need to avoid overlap with the state of the art. Thus, it could not be concluded from the explicit lack of substitution at the 3-position in D3 that compounds substituted at that position would be inactive.

6.2 The board disagrees. It is established jurisprudence that the prior art should be interpreted solely as it would be understood by the person skilled in the art. As noted by the respondent, when the ring system in formula (I) of D3 (claim 1) is quinoline, the 3-position is the only position on the ring at which substitution is not permitted. Thus, the skilled person is taught away from the introduction of any substituent at this position, and *a fortiori* from substitution by a strongly electron withdrawing moiety such as a cyano group, which would be expected to have unpredictable electrostatic effects at the enzyme binding site.

6.3 There is therefore no motivation in D3 for the skilled person to substitute hydrogen in the 3-position with a cyano group in order to solve the above-mentioned problem.

6.4 The appellant furthermore submitted that there was an inconsistency in the reasoning of the contested decision. On the one hand, the opposition division concluded that the technical problem (including the

biological effect) was solved over the entire scope of claim 1. On the other hand, the opposition division recognised inventive step on the basis that the skilled person would have had no motivation to replace the hydrogen in the 3-position of the compound of formula (I) of D3 (i.e. when X = CH) with a specific cyano group, and expect the same biological activity (contested decision, 2.5.5.1). This approach was inconsistent since the difference between X being CH or CN was far less than the structural extrapolations required to conclude that the technical problem was solved across the entire scope of the claim 1 at issue. It was not sufficient for the respondent to allege a particular structure-activity relationship (SAR) based on the core structure of claim 1 - the presence of such a relationship needed to be proven.

- 6.4.1 The board disagrees, and sees no such contradiction. First of all, the data on file demonstrating biological activity for a range of compounds falling within the scope of claim 1 itself constitutes sufficient evidence of a SAR based on the pharmacophore of claim 1 corresponding to the non-variable part of the compound of Formula 1. The presence of the SAR lends credibility to the retention of biological activity within a genus of compounds representing a reasonable extrapolation of those for which data is available (D7 and D23). On the other hand, the question of non-obviousness is a subsequent step in the problem-solution approach which can only be addressed once the objective technical problem has been identified, and involves a different question, namely whether the solution to the said problem would have been obvious to the skilled person in view of the disclosure of the closest prior art.

Therefore the question of whether the effect of kinase inhibition is credible over the entire scope of claim 1 is different from the question of obviousness, including e.g. the question of whether D3 teaches away from the subject-matter of claim 1.

- 6.5 Since no further inventive step objections were raised by the appellant, it must be concluded that the subject-matter of claim 1, and by analogy, claims 2-7, involves an inventive step.

The ground for opposition under Article 100(a) EPC in combination with Article 56 EPC therefore does not prejudice the maintenance of the patent as granted.

- 6.6 The board noted the alleged violation of the appellant's right to be heard, put forward in the context of the discussion on inventive step (statement of grounds of appeal, page 11, point 45). However, the appellant neither requested remittal to the opposition division pursuant to Article 11 RPBA 2020 nor reimbursement of the appeal fee pursuant to Rule 103(1)(a) EPC. Consequently, there was no need for the board to consider the allegation further.

7. The main request is consequently allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



N. Maslin

M. O. Müller

Decision electronically authenticated