

No. 13-255

IN THE
Supreme Court of the United States

WILDTANGENT, INC.,
Petitioner,

v.
ULTRAMERCIAL, LLC, et al.
Respondents.

On Petition for Writ of Certiorari to the United
States Court of Appeals for the Federal Circuit

**BRIEF OF AMICUS CURIAE
SIGRAM SCHINDLER
BETEILIGUNGSGESELLSCHAFT mbH,
IN SUPPORT OF PETITION FOR
CERTIORARI**

Chidambaram S Iyer*
Sughrue Mion, PLLC
2100 Pennsylvania
Ave, NW
Suite 800
Washington, DC 20037
Tel: (202) 293-7060
ciyer@sughrue.com

*Attorneys for Sigram Schindler
Beteiligungsgesellschaft mbH*

September 23, 2013

*Counsel of Record

TABLE OF CONTENTS

	PAGE
<u>STATEMENT OF IDENTITY&INTEREST</u>	5
<u>SUMMARY OF THE ARGUMENT...</u>	6
<u>ARGUMENT</u>	8
I. EMERGING TECHNOLOGY INVENTIONS, THEIR TWO KINDS OF PROBLEMS, AND MAYO SEPARATION OF CONCERN.....	9
II. THE BASIS OF AN EMERGING TECHNOLOGY INVENTION'S SPL TEST, AS THE SUPREME COURT REQUIRES IT BY <i>MAYO</i>	13
III. THE SUPREME COURT'S REFINED CLAIM CONSTRUCTION COMPRISES THE CLASSICAL ONE.....	17
IV. THE BEING OF INVENTIVE CONCEPTS.....	21
V THE <i>MAYO</i> DECISION ENFORCES PREDICTABILITY AND CONSISTENCY IN SPL.....	27
<u>CONCLUSION</u>	31

TABLE OF AUTHORITIES

CASES	PAGE
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 127 S. Ct. 1727, 82 USPQ2d 1385 (2007).....	5, 6
<i>Bilski v. Kappos</i> 130 S.Ct. 3218 (2010).....	5, 6, 15, 17
<i>Mayo Collaborative Servs. v.</i> <i>Prometheus Labs., Inc.</i> , 132 S. Ct. 1289 (2012).....	5, 6 - 10, 12 - 17, 19, 21 - 23, 27 - 30
<i>Association for Molecular Pathology v. Myriad Genetics</i> , 569 U.S. 12-398 (2013)	6
<i>CLS Bank Int'l v. Alice Corp.</i> , 717 F.3d 1269 (Fed. Cir. 2013) (en banc).....	6, 9, 10, 14
<i>Ultramercial, Inc. v. Hulu</i> 722. F.3d 1335 (Fed. Cir. 2013).....	6, 7, 9, 10, 15, 18
<i>Lighting Ballast Control LLC</i> <i>v. Philips Elecs. N. Am. Corp.</i> , 2013 U.S. App. LEXIS 5185, 2, 2013 (Fed. Cir. 2013).....	6
<i>Markman v. Westview Instruments, Inc.</i> , 517 U.S. 370 (1996)	27, 30

<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	27, 30
<i>Accenture Global Services, GmbH v. Guidewire Software, Inc., Fed. Cir. 2011-1486 (September 5, 2013)</i>	6, 9, 14
<i>Parker v. Flook</i> 437 U.S. 584 (1978)	7
STATUES	
35 U.S.C. § 101.....	6, 7, 13, 14, 15, 17, 19, 22, 23, 24
35 U.S.C. § 102.....	7, 8, 9, 13, 15, 17, 29, 31
35 U.S.C. § 103.....	6, 7, 8, 9, 13, 15, 19, 31
35 U.S.C. § 112.....	6-9, 13, 15, 19, 25, 19, 31
PAGE	

OTHER AUTHORITIES

- [1] “US Highest Courts’ Patent Precedents in Mayo/Myriad/CLS/Ultramercial/LBC: ‘Inventive Concepts’ Accepted – ‘Abstract Ideas’ Cleared Next? Patenting Emerging Technology Inventions Now without Intricacies”, S. Schindler, www.FSTP-Expert.com

Syste.com.

- [2] “advanced IT” is a generic term denoting IT research areas such as AI, Semantics, KR, DL, NL, ...
- [3] “Knowledge Representation and Reasoning”: R.Brachmann, H.Levesque, Elsevier, 2004.
- [4] “The Description Logic Handbook”, Cambridge UP, 2010.
- [5] “Mathematically Modeling Substantive Patent Law (SPL) Top-Down vs. Bottom-Up”, S. Schindler, JURISIN 2013, Yokohama, www.FSTP-Expert-Syste.com.
- [6] “THE FSTP EXPERT SYSTEM”, www.FSTP-Expert-System.com.
- [7] “AN INNOVATION EXPERT SYSTEM, IES, AND ITS DATA STRUCTURE, PTR-DS”, www.FSTP-Expert-System.com..
- [8] “TECHNICAL REPORT #1.V1 ON THE ‘882 PTR AND THE UI OF THE IES PROTOTYPE”, by J. Schulze, www.FSTP-Expert-System.com.
- [9] “Patent Business – Before Shake-up”, Extended marketing brochure, to be ordered by www.FSTP-Expert-System.com.
- [10] Amicus Brief to CAFC by SSBG in *LBC*, 2012-1014, www.FSTP-Expert-System.com.
- [11] “INVENTIVE CONCEPTS ENABLED SEMI-AUTOMATIC TESTS OF PATENTS”, www.FSTP-Expert-System.com
- [12] “Research Handbook on the Protection of IP

under WTO Rules”, by C. Correa, EE Publishing Ltd, 2010.

- [13] "Harmonisierungsbestrebungen im materiellen Patentrecht", by N. Klunker, MPI München, 2010.
- [14] USPTO/MPEP: “2111 Claim Interpretation; Broadest Reasonable Interpretation [R-9], 2173.01”, www.FSTP-Expert-System.com.
- [15] “KR Support for Substantive Patent Law (SPL) Precedents”, S. Schindler, submitted for JURIX 2013, Bologna, www.FSTP-Expert-System.com.
- [16] “ANYTHING UNDER THE SUN MADE BY HUMANS: PATENT LAW DOCTRINES AS ENDOGENOUS INSTITUTIONS FOR COMMERCIALIZING INNOVATION”, J. Daily, S. Kief, www.see-above.com.
- [17] Enbanq Hearing in *LBC*, CAFC, 12.09.2013.
- [18] Amicus Brief to the Supreme Court by SSBG in *CLS*, to be submitted to the Supreme Court later in September 2013, then on www.FSTP-Expert-System.com.

STATEMENT OF IDENTITY AND INTEREST

Sigmar Schindler Beteiligungsgeellschaft mbH and its subsidiaries (collectively “SSBG”) are research-based high technology companies located in Berlin, Germany, developing and selling products and services all over the world, including the US, via TELES AG. SSBG is a majority shareholder of TELES AG, founded 1983 by Sigmar Schindler, at that time full professor at the Computer Sciences Department of the Technical University of Berlin¹.

SSBG’s ability to invest in high-tech research is dependent upon the intellectual property protections accorded under the global patent systems, in particular in the United States and Europe. Strong patent systems require that the patents issued are consistently interpreted so that the metes and bound of the protected subject matter is clear and consistent. SSBG, therefore, has a vested interest in supporting the US patent system in its on-going development in adjusting itself to the needs of sectors of the economy based on emerging technologies. This court provided clear guidance and mandates in the *KSR/Bilski/Mayo* line of decisions to further advance US patent precedence in this area.

This brief, in support of the Petition for Certiorari, is filed on behalf of *Amicus Curiae* SSBG – which has no financial interest in either side.

¹ Pursuant to Supreme Court Rule 37.6, amicus curiae states, that no counsel for a party authored this brief in whole or in part, and no entity or person other than amicus curiae, its members, and its counsel, made any monetary contribution toward the preparation or submission of this brief. Letters from the parties consenting to the filing of this brief are on file with the Clerk.

SUMMARY OF ARGUMENTS

Claimed emerging technology inventions – i.e. claimed inventions based on e.g. DNA, business, nano, selfreplication technologies – drive a paradigm refinement in the current US Highest Courts’ patent precedents regarding 35 USC §§ 101/102/103/112 [referred to herein as “Substantive Patent Law (SPL)” [1]]. As seen by “advanced IT” [2], the pace maker in this paradigm refinement process is the US Supreme Court with its line of unanimous *KSR/Bilski/Mayo/Myriad* decisions. The CAFC has the mandate of implementing this transition of the US SPL precedents to the higher level of development, as has been clearly identified in the Supreme Court’s *Mayo* decision. But, this support appears to be difficult to provide.

I.e.: This paradigm refinement, required by the Supreme Court’s *Mayo* decision, is evolving controversially. This is shown by the CAFC’s debacles, as to interpreting § 101, by its *CLS* and Accenture decisions, both in addition being inconsistent with its *Ultramercial* decision. As to interpreting § 112 in light of the *Mayo* decision – i.e. as to the SPL paradigm refinement *Mayo* identifies and requires to be used in such claimed inventions’ tests under SPL – a similar issue is looming at the CAFC perhaps already in the pending *LBC* case.

Thereby there is no reason for this transition to be controversial. The Supreme Court namely solely requires, by its *Mayo* decision and its implications, that testing of emerging technology based claimed inventions under § 101 – due to the two kinds of new problems they all have in common – considers the

“usefulness” requirement statement of § 101 more carefully than hitherto practiced, i.e. more “purposeful” and hence itemized, yet without imposing on the tested claimed invention any new limitation.

This clarification is understood immediately, if put slightly more detailed as follows. Over many decades, the US Law Maker has stepwise refined the “novelty” requirement statement of § 101 by the §§ 102 and 103 (with some impacts on § 112) for legally getting under control claimed inventions of increasing complexity, though assuming the claimed inventions were dealing with what today is called “machine-or-transformation (MoT)”-type of subject matter [16]. Recently, the Supreme Court now has analogously refined – by its *Mayo* decision – the “usefulness” requirement statement of § 101 for legally getting under control claimed inventions of increasing degrees of abstractness and social impact, i.e. assuming the claimed inventions were at least partially not dealing with MoT-type but with “emerging technology”-type subject matter, often being intangible/invisible and/or of new pragmatics.

In so far the *Mayo* decision has been overdue since *Flook* [16]. And: Both paradigm refinements impose no limitations on the claimed invention, but just remove vagueness from their limitations.

It is this clarification of the *Mayo* decision by the Supreme Court that Ultramercial’s Petition for Certiorari is basically asking for – as supported by this Amicus Brief. It approaches to the question at issue in view of other similar Petitions pending already [18] resp. potentially arising [17].

The key achievement by the Supreme Court's *Mayo* decision is that it recognized the need of refining the classical paradigm of SPL by "inventive concepts" such as to enable construing the claimed invention's refined claim construction also of claimed emerging technology inventions.

Logically and legally this refined paradigm of SPL proved to imply that construing, on its basis, the claimed invention's refined claim construction is not only the first step of the claimed invention's test under SPL – what construing a classical claim construction only is./ But that successfully construing, for a claimed invention, this refined claim construction already actually is the necessary and sufficient condition alias test for this claimed invention's meeting all requirements stated by 35 USC §§ 101/102/103/112.

For achieving this ground breaking insight into SPL precedents, the Supreme Court had to introduce the new term/notion of "inventive concept" into patent jurisdiction. By the *Mayo* decision the Supreme Court hence epochally expanded SPL precedents by rationality alias scientificity.

By means of this beneficial term/notion the Supreme Court moreover clearly managed to show how to construe this refined claim construction for such a claimed invention without encountering uncertainties due to its subject matter being invisible/intangible alias model-based and/or subject to new pragmatics – to be described by resp. derivable from its specification.

ARGUMENT

The main part of the argument supporting this Petition for Certiorari is the presentation of hints – for consideration by the Supreme Court – which this Certiorari should somehow get conveyed to the US patent system as to completing a “classical” alias “pre/*Mayo*“ claim construction, if construed for an emerging technology claimed invention, to a “refined” alias “post/*Mayo*” claim construction for it.

This Certiorari thus would enable the US patent system to meet the *Mayo* decision’s – therefore unconditional – §§ 101/112 interpretation requirements when testing such a claimed invention for patent-eligibility and §§ 102/103 interpretation requirements when testing it for patentability.

I. EMERGING TECHNOLOGY INVENTIONS, THEIR TWO KINDS OF PROBLEMS, AND *MAYO'S* SEPARATION OF CONCERNS

Emerging technology inventions are based on subject matter of e.g. communications, DNA, pharma, business, nano, selfreplication, ... technologies.

The claimed inventions of the *CLS/Ultramercial/Accenture* line of decisions are all from the emerging technology area of business technology. This area is representative for all other emerging technology areas, in that any one of its claimed inventions poses the two typical and usually new problems for the hitherto established claim construction – which is deficient for them, as the Supreme Court by its *Mayo* decision clearly and unmistakably recognized.

Thus, the claimed invention in the *Ultramercial* case is – just as the one in the *CLS* case [18] – representative for the paradigm refinement, which the Supreme Court required by its *Mayo* decision to be used when testing claimed emerging technology inventions under § 101.

Inventions from emerging technology areas have two properties practically not present in MoT-type SPL precedents, but posing problems to emerging technology SPL precedents. Namely, **i)** they are subject to new pragmatics, and **ii)** their respective subject matter is intangible/invisible.

Examples of such claimed inventions are: software systems of business technology, drugs of DNA technology, pumps of nano technology.

Thereby the awareness of implications of such a property of a claimed invention

- i)** , i.e. its new pragmatics, is only vaguely known in advance – also if often addressed by media – and part of it may be exempted from patent-eligibility²⁾, whereas that of
- ii)** , i.e. its intangibility/invisibility, is not existing at all, as nobody in the community of patent professionals has been afraid, hitherto, that the intangibility/invisibility of the claimed invention and its subject matter had any substantial

² An example is the pragmatics^{4,7)} of a biological warmth generating method which is capable of working on various cellular tissues, of which only the instantiation on “human cellular tissue” is exempted from patent-eligibility.

implications, although already trivial psychology tells that our brain must substitute their intangible/invisible subject matters by respective purely mental models thereof. Such claimed inventions thus are called “model based”³⁾.

Thereby these models usually are individually subcortically invoked or even construed while trying to grasp or discuss a model based claimed invention. Consequently the two models, which two readers of a model-based claimed invention’s specification have in mind, may crucially differ.

In dealing with totally³⁾ MoT-type inventions, such plainly mental models are practically not needed. Then invisibility/intangibility invites no obscurity, i.e. clarity may always be achieved by some graphical presentations. This usually also holds for the question, which problem to solve the claimed invention has been invented for, as a MoT-type claimed invention immediately shows this problem – while for a model based claimed invention the answer to this question often cannot be derived from the invention, if namely the underlying model is not uniquely defined, what mostly is the case for such models³⁾.

Thus, while a claimed emerging technology invention often is initially pretty blurring, when it

³ A model-based claimed invention may be partially or wholly described by making use of, i.e. “on top of”, one or several models, more or less precisely and/or completely representing the real entities the invention involves. Such details may be ignored in this brief.

comes to describing it precisely – e.g. due its problem ii), implied by the intangibility/invisibility of this claimed invention's subject matter – it eventually¹¹⁾ may precisely be described by the Mayo decision's “inventive concepts” on top of some assumed model³⁾ left vague¹¹⁾. Such vague models are e.g. communications connection, computer system, DNA, ... models.

But this preciseness is achievable only, if this claimed invention's inventive concepts, initially usually being compound, are disaggregated into conjunctions of elementary ones – what always is possible (under very weak and hence mostly, if not even always, given preconditions [15]). After this disaggregation it is in particular easy, to separate such inventive concepts into two sets: One set comprising all patent-eligible such inventive concepts, the other set comprising all patent-non-eligible inventive concepts, due to their pragmatics i)⁷⁾ – exactly as required by the *Mayo* decision.

If this disaggregation of the initially compound inventive concepts of a claimed invention is not performed, first – or if these are not determined, at all, but the claimed invention is described only by its specification's terms – the *Mayo* decision's requirements cannot be met. The above quoted CAFC decisions became controversial and inconsistent to the known extent due to this reason (see Sections IV/V).

II. THE BASIS OF AN EMERGING TECHNOLOGY INVENTION'S SPL TEST, AS THE SUPREME COURT REQUIRES IT BY *MAYO*

It is decisive to note that the *Mayo* decision requires to determine, for a claimed emerging technology invention's test under § 101, prior to or during executing this test, a set of "inventive concepts", on which the test must be based.

Up-front, before explaining this requirement in detail, two very important remarks are in place:

- The *Mayo* decision does not just require using some whatsoever § 101 test for determining of a claimed emerging technology invention its patent-eligibility – whereby it clearly states its requirements to be met by any such test (nothing else), namely that it legally must be based on a set of "inventive concepts" – leaving away any further detail – except that it also quite clearly states that executing a thus based § 101 test indispensably implies testing this claimed invention under §§ 112/102/103 "in the light" of this thus based § 101 test, too.

Hence the Supreme Court by its *Mayo* decision requires, when testing a claimed emerging technology invention under 35 USC § 101 based on some set of inventive concepts, also this claimed invention's test based on this very set of inventive concepts under all 4 sections of 35 USC. I.e.: It requires testing this claimed invention under the whole SPL based on the same set of inventive concepts, not testing it just under the SPL's § 101.

It thus is correct to state that – at least for emerging technology inventions – by its *Mayo* decision the Supreme Court requires the § 101 test to be a whole SPL test of this claimed invention based on one single set of inventive concepts embodied by it. Thereby the *Mayo* decision also clearly implies – see Section II.3 – that this whole SPL test comprises a refinement of the classical compound and hence amorphous/diffuse/unspecific § 101 usefulness test. It thus prompts the above controversies and inconsistencies, which the Supreme Court by its *Mayo* decision intended to terminate/avoid, what evidently hitherto didn't work out, yet.

As any such claimed invention must pass this refined § 101 test, the Supreme Court by its *Mayo* decision clearly requires a “SPL paradigm refinement” – at least for emerging technology inventions – which the recent pertinent CAFC decisions didn't meet, as explained by the next bullet point.

Concluding this first remark, finally: The *Mayo* decision even omits any hint that it conveys only the principle to be applied in any such refined § 101 usefulness test. Yet, after its *Mayo* decision, the Supreme Court repeatedly pointed at this principle by granting a line of Petitions for Certiorari in which it explicitly asked the CAFC to reconsider its respective decision “in the light of *Mayo*”, whereby this metaphor represents exactly such a pointer.

- In the *CLS* just as in the *Accenture* case, i.e. in both of the above two totally controversial CAFC decisions, the respective claimed such invention's

test by the CAFC under 35 USC § 101 completely failed to meet the Supreme Court's requirements, which its *Mayo* decision has clearly stated – as outlined in the preceding bullet point – for this claimed invention's § 101 test.

I.e.: None of both controversial CAFC decisions performed the respective claimed invention's § 101 test within the legal framework, which the *Mayo* decision has clearly and absolutely unmistakably established for the refined § 101 usefulness test (see the SUMMARY), as they failed to determine a respective indispensable set of inventive concepts for their § 101 tests as well as failed to verify that, based on these very respective sets, the claimed inventions would also pass their § 112/102/103 tests or not.

The CAFC's *Ultramercial* decision, out of this line, by its "thinking" does approach meeting the Supreme Court's requirements stated by its *Mayo* decision. But also here it is evident that the CAFC still tries to get along without the *Mayo* decision's key notions "inventive concept" and "abstract idea". These are explained in detail in Section IV and [18], after Section III first clarifies that the *Mayo* decision is in reality nothing else but a consequential and simple refinement of the hitherto practiced totally amorphous and unspecific § 101 usefulness test, such that this refinement enables consistently and predictably deciding on the patent-eligibility and patentability of claimed inventions also if they deal with emerging technologies – as explicitly emphasized to be indispensable by the Supreme Court's *Bilski* and *Mayo* decisions.

After these two remarks and the preceding sections, it is evident that the CAFC inevitably had got to get into inconsistent opinions, as – puzzled by the two just quoted *Mayo* notions – it tried to interpret the paradigm refinement required by the *Mayo* decision (by means of these two notions) within the framework of the classical SPL paradigm, which does not comprise these two notions. Thus, by logic, any such, in itself contradictory, interpretation

- enables contradicting opinions about the claimed invention being tested under § 101, and
- disables – as eliminating the Mayo decision's refinement – the disaggregation of the claimed invention's compound inventive concepts into elementary inventive concepts, hence also separating these inventive concepts' patent-eligible from their non-patent-eligible new pragmatics. This in turn eliminates – supported by mental deficiencies implied by such inventions' new intangibility/invisibility of subject matters – the basis for arguing such as to meet the Supreme Court's requirements (and those of advanced IT).

III. THE SUPREME COURT'S REFINED CLAIM CONSTRUCTION COMPRISES THE CLASSICAL ONE

The Supreme Court's § 101 test required, by its *Mayo* decision, nothing else but an evidently logically necessary, simple, and overdue refinement – after all is understood, one namely sees that this refinement is logically necessary also when dealing with MoT-type inventions, *Bilski* – of the hitherto construed claim construction such that it enables consistently and predictably deciding on the patent-eligibility and patentability of claimed inventions also if they deal with intangible and invisible subject matter (see Section V).

This consistency and predictability is logically impossible, if all the SPL relevant knowledge about the model based claimed invention is represented solely by the classical construction for it – as just explained in Section II.

This clarification, probably conveyed to the US NPS if this Petition for Certiorari is granted, would comprise two parts:

- Firstly, removing the broadly observable fear/misunderstanding that the Supreme Court imposes – by its *Mayo* decision required paradigm refinement, which excludes an “abstract idea” from patent-eligibility – a new restriction on a claimed model based invention for its test under § 101.

Exactly the contrary applies!

Namely, this clarification by the Supreme Court's *Mayo* decision as to the § 101 interpretation solely serves the purpose to protect the constitutionally established breadth of the § 101

interpretation – as repeatedly emphasized and presented above any doubt by the CAFC’s patent precedents, e.g. recently in *Ultramercial* – by excluding granting patent protection to a claimed invention, if its specification provides of its claim’s scope an abstract idea only, as easily happens with claimed model based inventions due to their intangible/invisible subject matters (see Sections I). Then its claim – because of its unclear scope – is definitively preemptive⁴⁾.

By ignoring this evident deficiency of classical claim construction when granting patent protection to such model based (\approx emerging technology) claimed inventions resp. their claims with scopes represented only by an abstract idea, their preemptivity would put SPL into jeopardy as economically/socially/politically totally untenable.

⁴ For a claimed invention and the claim claiming it, Mathematical KR enables proving – leveraging on the definitions [5] enabled by the refined claim construction – the notional/legal equivalence of the terms denoting it/them as being “(non)preemptive” and being “(not) an abstract idea only” [5]. Thus, although it/they are named as being “preemptive” resp. being an “abstract idea only” and hence its/their properties are seemingly quite different from each other – at a first glance, as these properties say: “This claimed invention comprises a still unknown invention” resp. “This claim’s scope is only incompletely disclosed by the specification” [5] – a mathematical KR analysis of both clauses shows that any one of their statements implies the other one [5].

- Secondly, there are two overdue (as classically in principle also indispensable) simple and straightforward reflections – being evident to the person of any skill, once aware of them – the Supreme Court requires to be thought of in construing the refined claim construction for a model based claimed invention. These reflections are:
 - ❖ Not to test the claimed invention solely under the § 112 disclosure requirements “clearly understood(???)”. But to test such a claimed invention also under the “not being an abstract idea only”/“nonpreemptivity” finer disclosure requirement^{4),11)}.
 - ❖ The Supreme Court stated by *Mayo* this requirement to be constitutionally embodied by any § 101 interpretation, too – which may deeply impact on the claimed invention’s test under §§ 102/103 [18].
 - ❖ To construe, to this end, the claim construction for it no longer by terms⁵⁾ representing solely some whatsoever limitations⁶⁾ of it, but by much more “purposeful as § 101 minded” so-called “inventive concepts”, which represent the itemized § 101 usefulness of the claimed invention^{5),6),8),11)}.

⁵ A term together with its meaning is denoted as “notion”, its term as the notion’s name. A notion hence comprises a definition of the meaning its name/term. Here, this meaning is a property of an element quoted by a claim and is made-up as one or several limitations of the invention (made-up by some broader set of these limitations) such that it specifies an item of the invention’s “§ 101 refined usefulness” – additionally to its “§ 101/102

refined novelty” and/or “§ 103 refined nonobviousness”⁸⁾⁻¹¹⁾. A notion is an “inventive concept” – see Section II.4 – if its meaning identifies its “patent monopoly granting pragmatics”⁸⁾ being either patent-eligible or non-patent-eligible, as determined by the Parliament or the Supreme Court¹¹⁾.

A so understood “inventive concept”, i.e. as used in the *Mayo* decision – as such being a mental/fictional/intellectual construct, just as any notion¹¹⁾ – in no way may be understood as representing an “abstract idea” of somewhat, as suggested by some patent business practitioners. A “*Mayo*-type” inventive concept is always a concrete and named representative of something precisely to be defined as disclosed by the specification when creating it. If this impossible the inventive concept does not exist – but is not an “abstract idea” I.e., their pretended notion of an “abstract inventive concept” does not exist, as it is a term/clause without a meaning, as the meaning they assume – being an “abstract idea” of somewhat – contradicts the definition of an inventive concept.

- 6 In patent law language the meaning of a term⁵⁾ is often called “limitation”. Thereby the single meaning of a term/name may be split into two parts, which may be subject to two different respective pragmatics^{9),10)}. An “inventive concept” of a claimed invention is, by the Supreme Court’s *Mayo* decision, in the US patent precedents always a notion of the latter kind¹¹⁾. As the notion of inventive concept is bifid, as the CAFC recently discussed [17], it is for clarity also mathematically modeled by [5], for avoiding any misunderstanding about its logically being a legal fact.

IV. THE BEING OF INVENTIVE CONCEPTS

First of all, the misunderstandings of the *Mayo* term/notion “inventive concept” among patent business practitioners got to be removed [7, ftn 4.d].

Indeed, the term “concept” as such – i.e. taken context free – is ambiguous, as there are

- over the millennia grown broad and sweeping meanings of the term/notion concept, comprising different flavors and being “vagueness tolerating”, colloquially speaking addressing big issues such as “soul, god, love, truth, drama, faith, belief,, an intellectual principle of some doing, a plot of a drama, a pattern of events, ” and
- by IT defined specific meanings of this term/notion concept, also comprising different flavors, but all of them being meticulously “details oriented” – as indispensably required for enabling them to precise statements, e.g. “formal specifications” alias “mathematical models” of functional and non-functional properties of any complex system, its modules and their interactions, as needed by SPL prosecution or litigation cases.

The first systems, where this IT notion of the term concept was used for specifying/modeling/configuring them, were large data base systems in the early 70s – then also starting from the above broad notion, but stepwise learning the lesson that this notion had to be refined to enable the needed kind of precise descriptions/models of properties of their processes and data structures – and then it migrated from there into all other advanced IT areas [2, 3, 4].

While the use of the above IT notion of concept mostly comes along with the awareness of the

pitfalls of human thinking/speaking about complex systems, such as controversial SPL cases – and that their compound concepts are aggregated from elementary concepts, hence are often very complex without letting us know about this complexity – those who have not undergone the tedious learning process how deficient natural language and thinking often is, e.g. many patent business practitioners, are ready to knee-jerkily leap to any historic/vague notion of concept if only plausible, assuming erroneously that their plausibility were sufficient for their being well-definable and really understood by them.

As to these two optional meanings of the term “concept” the following holds. The *Mayo* decision quite clearly interprets the term/notion “inventive concept” as IT. By contrast those, worldwide, who disagree with the US Law Maker’s and US Highest Courts’ broad interpretation of 35 USC § 101 insist, the *Mayo* decision’s notion of “inventive concept” used the above colloquial vague meaning of “concept”, as the *Mayo* decision also uses this term “concept” once – but in quite another context. They ignore that the Supreme Court’s *Mayo* decision had asked for several “inventive concepts” of the claimed invention. Their assumption that the *Mayo* decision were talking of only a SINGLE inventive concept of its claimed invention evidently contradicts its wording.

But: If the above “details oriented” IT notion of the *Mayo* decision’s inventive concepts is accepted, a fundamental question remains. Namely, what then are such “inventive concept” precisely⁵⁾ – defined in terms of the person of pertinent ordinary skill/creativity? Evidently, part of the CAFC and the broad majority of (patent) lawyers couldn’t come to terms with this decisive notion introduced by the Supreme Court into SPL precedents (see Section II.5). This crucial question is answered next, using the linguistic usual understanding of the notion “pragmatics”⁵⁾.

Definition: An “inventive concept” of a claimed invention is a notion disclosed by the claimed invention’s specification, if its meaning meets the “refined usefulness requirement” stated by 35 USC § 101⁷⁾ (see Sections I and II.5¹¹⁾).

An “inventive concept” hence comprises the qualification alias pragmatics of its meaning to be patent-eligible or not⁵⁾. Once used to it [18], this notion of an inventive concept proves to be an absolutely trivial mental/artificial/fictional construct – as any triviality definable only under difficulties. In spite of its triviality it is extremely apt for clearly

⁷ This Supreme Court interpretation of the 35 USC § 101 by means of the new¹¹⁾ legal instrument “inventive concept” rests on the *Mayo* decision’s determination, what kinds of their bifid meanings⁶⁾ – represented by their embedded resp. creative concepts [5], stating their § 101 resp. refined usefulness¹⁰⁾ – are patent-eligible and lawfully disclosed or not, i.e. are of which § 101 pragmatics, (to be) described by the inventive concepts’ embedded resp. legal concepts [5, 18].

presenting and understanding the SPL construct of ideas^{8),11)}.

Next is shown that the use of inventive concepts (in claimed inventions' SPL tests) has two further important advantages over the use of classical terms therein – which moreover make this refocusing next to trivial.

In more detail, this refocusing proves to be extremely rewarding – as to clearly presenting and understanding the “construct of ideas of SPL” and hence testing a claimed invention therein – due to two reasons. Firstly: While a term/name is usually short, an inventive concept usually is given a lengthy self-descriptive name (just as of an atomic concept in DL [4]) unless this is superfluous because the inventive concept’s meaning is known under its term’s name⁵⁾ to the person of pertinent ordinary skill/creativity; this advantage hence is evident. Secondly: An inventive concept’s meaning is always stated as a property, while the meaning of a term is

⁸ For representing its pragmatics, an inventive concept¹¹⁾ identifies one or several limitations (of the claimed invention’s total set of limitations) and puts it/them such as to specify its “§ 101 refined usefulness”^{7),9)} – in addition to its “§ 101/102 refined novelty” and “§ 103 refined non-obviousness”. I.e.: A well defined [18] claimed invention embodies no inventive concept that does not meet the refined usefulness requirement stated by § 101, otherwise it would render the claimed invention’s scope to be an “abstract idea” of it – and a question as to the claimed invention’s inventivity⁹⁾ then is obsolete.

often stated by a negation of a property; this second advantage needs the following explanations:

- The classical claim construction assumes that the inventivity⁹⁾ of a claimed invention becomes easily apparent to patent lawyers/examiners/judges – as they need it for recognizing, whether a claimed invention meets all §§ 101/112 requirements – by its limitations, but thereby ignores that in their brains, limitations have difficulties to build up resp. to activate subcortically controlled recognition processes alias “intuition” as to this claimed invention, because limitations are somewhat unnatural: They namely are negations referring to the properties of its elements¹⁰⁾.
- The refined claim construction, by contrast, automatically engages, by its inventive concepts, these patent practitioners’ such intuitions while drafting/analyzing/defending a patent’s claimed invention – as these inventive concepts expose their contributions to the claimed invention’s total usefulness¹⁰⁾ in a natural way, which makes it for the patent practitioners’ brains much simpler to build up resp. activate/animate subcortically controlled recognition processes of properties of the claimed invention’s elements. This process is stimulated by the brain, as it automatically recognizes that these “positive” properties

⁹ The notion of “inventivity” of a claimed invention – i.e. the inventivity embodied by this claimed invention – is logically implied by the *Mayo* decision to legally mean, what is represented by this invention’s total set of limitations of all its elements, i.e. of all elements of the claim claiming the invention described by its specification.

represent those meanings, with the negations of which it was struggling before¹⁰.

¹⁰ The legal meaning of the notion “usefulness” of a claimed invention – i.e. embodied by it – is, just as with its inventivity⁹, represented by this claimed invention’s total set of limitations of all its elements. Consequently, from the definition of the inventive concepts making up this claimed invention follows logically that anyone of them contributes – by its contribution to the total set of limitations of the claimed invention – equally to the claimed invention’s itemized/refined usefulness, thus meeting this § 101 requirement, too.

The *Mayo* decision invokes, by its inventive concepts, for its refined claim construction for a claimed invention, this additional “contribution to its usefulness” minded view at this claimed invention’s inventive concepts. This “contribution to the claimed invention’s usefulness” minded view at inventive concepts changes nothing with these inventive concepts’ and/or their terms’ hitherto only considered “contribution to this invention’s total limitations” minded pragmatics – i.e. nothing is changed for the more basic classical claim construction for this claimed invention. It evidently is this additional “contribution to this claimed invention’s usefulness” minded pragmatics of the inventive concepts, by which the Supreme Court achieves an increased purposefulness of its refined claim construction.

Such psychological phenomena – the psychological preferences, when seeking understanding and working with meanings, of complementarities/congruities over analytically drawing conclusions, i.e. of building up a whole over carving out this whole – are well known.

And even better: This invocation of the patent professional's intuition – when testing a claimed invention under SPL – would not only detect, as counterintuitive, any attempt of an illegal broadening of terms' meanings by the occasionally really sophisticated misuse of the *Markman/Phillips* decisions the BRI guideline invites to [5], but it also animates the sharpness of a patent business professional's ability as to criticism and creativity as to the claimed invention, thus increasing the comfort and efficiency of his/her work. This makes the refined claim construction based on the claimed invention's inventive concepts by far superior to the classical claim construction based on solely the terms used by the claim's wording.

V. THE *MAYO* DECISION ENFORCES PREDICTABILITY AND CONSISTENCY IN SPL

Recognizing that the *Mayo* decision actually does enforce predictability and consistency in SPL is facilitated by reminding in particular two earlier steps of developing professionalism in SPL precedents: A binding but incomplete paradigm for interpreting SPL – as to a claimed invention's test under it – has been established by the Highest Courts already by deriving their *Markman/Phillips* decisions from the above quoted 4 Sections of 35 USC. Of such a test the first step, since then, is called

“construing the claimed invention’s claim construction”. The latter here is attributed by “classical”.

The key achievement by the Supreme Court’s *Mayo* decision is that it recognized the need of refining this classical paradigm of SPL by “inventive concepts” such as to enable “construing the claimed invention’s claim construction” also of claimed emerging technology inventions¹¹⁾.

¹¹ It thereby proceeded exactly as, since the days of the old Greeks [7, ftn. *)-4)], the rationality within frequently recurring stereotypic activities has always been identified and made conveniently accessible/usable: By carving out, of the metaphysics/irrationality within which these activities are embedded, a term/notion representing part of it – and hence not being rationally definable as such – but apt for rational use when executing these activities. Examples of such epochal discoveries in the realm of metaphysics/ irrationality are, as to the frequently occurring stereotypic activities in many metaphysical/irrational calculations, the terms/notions of “1”, “2”, “3” (probably known since the stone age already), the terms/notions of “0” or “=” (not yet known by the Romans but fundamental for today’s mathematics), and the terms/notions of “i” or “√“ or “sin” discovered for today’s mathematics only few hundred years ago, though metaphysically/irrationally felt already since the old Greece. As to the frequently occurring stereotypic activities in SPL precedents, the Supreme Court discovered the term/notion “inventive concept” to be of that “rationality creating” quality.

Logically and legally this refined paradigm of SPL proved to imply ([11], [15], [7]) that construing, on its basis, the claimed invention's claim construction is not only the first step of the claimed invention's test under SPL. But that successfully construing, for a claimed invention, this refined claim construction already actually is the necessary and sufficient condition alias test for this claimed invention's meeting all requirements stated by 35 USC §§ 101/102/102/112.

For achieving this ground breaking insight into SPL precedents, the Supreme Court had to introduce the new term/notion of "inventive concept" into patent jurisdiction¹¹⁾. By the *Mayo* decision the Supreme Court hence epochally expanded SPL precedents by rationality alias scientificity¹¹⁾.

By means of this beneficial term/notion the Supreme Court moreover clearly managed to show how to construe this refined claim construction for such a claimed invention without encountering uncertainties due to its subject matter being invisible/intangible alias model-based and/or subject to new pragmatics, as described by resp. derivable from its specification, as explained in detail in [18].

This scientifically clean fundament provided by the *Mayo* decision even induced/enabled developing specific KR technique [5, 15, 18] that semi-automatically supports exploratively testing a claimed invention's patent-eligibility and patentability and confirmatively repeating this test anytime in real-time starting anywhere.

To summarize: A by the Supreme Court's potential Certiorari cleared "refined claim construction" – being legally "completely backwards compatible" to the classical claim construction, which often remains sufficient for MoT-type claimed inventions – is intellectually even less demanding than the classical claim construction for it, logically being weak. Yet, the refined claim construction is quantitatively more elaborate.

But, this drawback of the refined claim construction may be and/or is by far outweighed

- quantitatively, by the automatics it enables, and
- qualitatively, by its increased preciseness, completeness, and purposefulness, which totally exclude the loopholes in the *Markman/Phillips* interpretations of these 4 Sections of 35 USC as to testing a claimed invention under them ([10], [15], [14]).

The *Mayo* decision, as presented by the Supreme Court, i.e. not distorted, hence disables

- ❖ fundamental dissents as to the being of such tests, as they occurred in the above quoted CAFC decisions – and earlier already [16], [17] but
- ❖ no dissents by the tastes of experts, examiners, or judges as to the "values/qualities/???" of the inventive concepts at issue representing the claimed invention. With its specification properly drafted, semantic research will, based on SPL and its precedents, exclude also such dissents [5].

CONCLUSION

In the international arena of national/regional patent systems, the US Highest Courts' patent jurisdiction is just proving its leading role by adjusting the US SPL precedents to the needs of emerging technologies – by accordingly refining the interpretation of 35 USC §§ 112/101/102/103, and hence the paradigm of the SPL precedents, probably worldwide.

Respectfully Submitted,
Chidambaran S. Iyer
Sughrue Mion, PLLC
2100 Pennsylvania Ave, NW
Suite 800
Washington, DC 20037
Tel: (202) 293-7060
ciyer@sughrue.com
Attorney for
Sigram Schindler Beteiligungsgesellschaft mbH