Datasheet for the decision
of 10 December 2019

Case Number: T 1499/17 - 3.5.05
Application Number: 11874850.8
Publication Number: 2771830
IPC: G06F19/26, G06F19/12,
     G06F19/24, G06F19/00
Language of the proceedings: EN

Title of invention:
PATHWAY RECOGNITION ALGORITHM USING DATA INTEGRATION ON
GENOMIC MODELS (PARADIGM)

Applicant:
The Regents of the University of California

Headword:
Pathway recognition/UC

Relevant legal provisions:
EPC Art. 84, 54, 56
RPBA Art. 12(4)

Keyword:
Claims - clarity (no)
Novelty - (no)
Decisions cited:

Catchword:
Case Number: T 1499/17 - 3.5.05

DECISION
of Technical Board of Appeal 3.5.05
of 10 December 2019

Appellant:    The Regents of the University of California
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Representative:    Elkington and Fife LLP
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 6 February 2017
refusing European patent application No.
11874850.8 pursuant to Article 97(2) EPC.

Composition of the Board:

Chair        A. Ritzka
Members:     E. Konak
             G. Weiss
Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse the application for lack of clarity (Article 84 EPC) and lack of inventive step (Article 56 EPC) with regard to the following document:


II. With its statement setting out the grounds of appeal, the appellant filed claims 1 to 7 of a main request. The appellant requested that the decision be set aside and a patent be granted based on this main request. It requested remittal of the case to the examining division for further prosecution and oral proceedings as auxiliary measures.

III. In its preliminary opinion, the board raised objections under Articles 84 and 56 EPC. The board further informed the appellant that the request for remittal seemed not to be admissible (Article 12(4) RPBA).

IV. The appellant did not reply to the summons to oral proceedings in substance, but merely informed the board that it would not be attending the oral proceedings.

V. Oral proceedings were held before the board in the absence of the appellant.

VI. Claim 1 of the main request reads as follows:

"A pathway analysis ecosystem (100), comprising:
pathway element database (120) configured to store a plurality of pathway elements (125), each pathway element being characterized by its involvement in at least one pathway and being selected from a protein or nucleic acid; a modification engine (110), communicatively coupled to the pathway element database (120); wherein the modification engine (110) is configured to associate a first pathway element with at least one a priori known attribute (133) selected from the group consisting of a gene copy number, a transcription level, a translation level, and a protein activity; and wherein the modification engine (110) is configured to associate a second pathway element with at least one assumed attribute (137) selected from the group consisting of a gene copy number, a transcription level, a translation level, and a protein activity, and wherein the kind and value of the assumed attribute (137) is a function of a reference pathway; and wherein the modification engine (110) is configured to cross-correlate and assign an influence level (145) of the first and second pathway elements for at least one pathway using the known and assumed attributes (133), (137), respectively, to form a probabilistic pathway model (140); and an analysis engine (160), configured to use the probabilistic pathway model (140) to derive from a plurality of measured attributes (173) of a plurality of pathway elements (125) of a patient sample, the plurality of measured attributes (173) being selected from the group consisting of a mutation, a gene copy number, a transcription level, a translation level, a protein activity, and a protein interaction, the dynamic pathway map (165) that can indicate deviations from the probabilistic pathway model (140), and which provides reference pathway activity information for a
particular pathway and which is specific with respect to a normal tissue, a diseased tissue, an ageing tissue, or a recovering tissue, wherein the analysis engine (160) configures one or more output devices to present the dynamic pathway map (165), and wherein the pathway is within a regulatory pathway network."

Reasons for the Decision

1. Clarity (Article 84 EPC)

1.1 The term "[pathway analysis] ecosystem" used in claim 1 is unclear. The appellant added this term to the claims during the examination proceedings, arguing that system claims are usually granted at the EPO and that it is clear that the claim pertains to a system for analysing pathways. The board does not agree with these arguments. In the European patent system, a claim for a system is understood as a claim for an apparatus. Whereas system or apparatus claims are a well-established claim category, claims for an "ecosystem" are unheard of. An "ecosystem" neither has an established meaning in the relevant art nor can be construed as an apparatus solely because it has the word "system" as a sub-string.

1.2 More crucially, the board agrees with the contested decision that it is not clear in claim 1 how the term "a priori known attribute" differs from the term "assumed attribute". These terms have no established meaning in the relevant art. The appellant's arguments to the contrary in the statement setting out the grounds of appeal do not convince the board. The appellant merely argued that the terms are sufficiently explained in paragraph [0161] of the description.
However, the requirement for clarity under Article 84 EPC concerns the claims, not the description. The claims have to be clear by themselves.

1.3 Therefore, claim 1 is not clear (Article 84 EPC).

2. Novelty (Article 54(1) and (2) EPC)

2.1 The contested decision considered D1 to represent the closest prior art and the subject-matter of claim 1 to differ from the disclosure of D1 only in that "assumed" attributes are used for forming a probabilistic pathway model.

2.2 The appellant did not dispute this assessment but the examining division's assessment that the only distinguishing feature of claim 1 is unclear (see 1.2 above) and its conclusion that an unclear feature cannot be relied upon to establish an inventive step.

2.3 Paragraph [0161] of the description, on which the appellant relies for the definition of the disputed terminology, states that "a priori known attributes" are known from prior study and publication, whereas "assumed attributes" are not known but can be assumed with a reasonably good expectation of accuracy. However, its epistemological properties, i.e. whether its information content is known from prior publications or is assumed, cannot delimit the attribute feature processed in a system.

2.4 Therefore, the subject-matter of claim 1 is not new (Article 54(1) and (2) EPC).

3. Request for remittal to the examining division
3.1 In the statement setting out the grounds of appeal, the appellant further requested remittal of the case to the examining division for further prosecution, but it did not substantiate this request. It is established case law of the boards of appeal that unsubstantiated requests cannot be considered in appeal proceedings (see "Case Law of the Boards of Appeal of the European Patent Office", 9th edition 2019, V.A.4.12.5, "Unsubstantiated requests"). Therefore, the board does not admit this request (Article 12(4) RPBA).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz-Wein A. Ritzka

Decision electronically authenticated