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March 8, 2019

The Honorable Andrei Iancu  
Under Secretary of Commerce for Intellectual Property and  
Director of the U.S. Patent and Trademark Office  
U.S. Patent and Trademark Office  
600 Dulany Street  
Alexandria, VA 22314

Via email: [Eligibility2019@uspto.gov](mailto:Eligibility2019@uspto.gov)

Re: Comments of Helix OpCo, LLC, on 2019 Revised Patent Subject Matter Eligibility Guidance (Docket No. PTO-P-2018-0053)

Dear Director Iancu:

Helix OpCo, LLC<sup>1</sup> appreciates the opportunity to comment on the United States Patent Office's (USPTO's) "2019 Revised Subject Matter Eligibility Guidance" (PEG). We find it to be a thoughtfully written and comprehensive analytical framework. Moreover, it cites numerous holdings from the Alice decision and previous Supreme Court decisions concerning patentability, and brings those holdings together into a coherent theme. PEG thus provides Examiners with clear direction that remains true to the Supreme Court's patent law jurisprudence.

We attended (along with many other members of the public) the 3 hour PEG "Advanced Module" webinar provided by Virtual Instructor Led Training (vILT) on February 28, 2019, which we understand was essentially the same training previously provided to the Examiners. That training was also very well-done, including an in-depth review of all substantive portions of the PEG, as well as applications of the PEG analytical framework to evaluate patent eligibility for numerous hypothetical patent claims across diverse fields of technological endeavor. Importantly, training closed with a statement that Examiners are repeatedly encouraged to practice "compact prosecution" - addressing all statutory requirements, not just patent eligibility, and pointing

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<sup>1</sup> Helix OpCo, LLC ("Helix") is an innovative company at the forefront of personal genomics, headquartered in San Carlos, California. Helix employs over 100 talented scientists, engineers, genetic counselors and other professionals dedicated to pursuing its mission: to empower every person to improve their life through DNA. Helix is uniquely positioned to provide feedback concerning this latest guidance, as it operates daily at the intersection of software and bioscience, making both the Alice and Mayo decisions directly relevant to it.

applicants to eligible subject matter in the specification when possible. We applaud Patent Office leadership in rolling out PEG training to Examiners so quickly after its publication.

We are particularly encouraged that Examiners will no longer be required to engage in a “case comparison” approach in assessing patent eligibility. This significant change addresses the reality on the ground that there are not Federal Circuit or Supreme Court opinions (whether finding patent eligibility, or ineligibility) addressing the myriad fields of technical endeavor described in patent applications filed by applicants, and then examined by Examiners in the Patent Office, on a daily basis. The negative impacts of the “case comparison” approach are further amplified when applied to newer technologies, and interdisciplinary inventions.

As in many other areas of law, patent law follows (technological) developments in our society. Patent eligibility determinations during examination should not be predicated upon the availability of Supreme Court or CAFC decisions (which by their very nature are years in the making) that are directly on point.

Thus, the PEG, in tandem with the associated training the Examiners have received, provide the Examiners with a consistent, robust, and thoughtful analytical framework, which they can use to make patent eligibility determinations. It is a large step in the right direction toward achieving the Patent Office’s stated goal of ensuring “that its more than 8500 patent examiners and administrative patent judges apply the Alice/Mayo test in a manner that produces reasonably consistent and predictable results across applications, art units, and technology fields.”

This new analytical framework is true to Supreme Court jurisprudence, recognizes the reality that technology is constantly advancing, and provides clear notice to industry and the public of what is required for patent claims to meet the requirements of Section 101 of the Patent Statute. Going forward, consistent application of this new analytical framework by Examiners will result in protection of the public interest, and provide greater certainty for both applicants and litigants with respect to Section 101 concerns.

We respectfully suggest two ways to further improve application of the PEG analytical framework by Patent Examiners.

- 1) Emphasize that the Enumerated Examples of Practical Applications Relating to Prong Two of Revised Step 2A are not exhaustive

Emphasizing with all Examiners in ongoing training that, while the PEG lists numerous examples of integrating a judicial exception into a practical application, “[t]his is not an exclusive list, and there may be other examples of integrating the exception into a practical application.”

Doing so will make clear to Examiners that they have the freedom to exercise their best judgment and consider the invention as claimed from the perspective of one of ordinary skill in the art as of the filing date, in addition to considering the examples listed in the PEG. Any scheme by which Examiners simply compare claims to a list of cited examples will inevitably stifle innovation that straddles multiple technological fields. Claims relating to new interdisciplinary inventions (and revolutionary inventions) will rarely if ever be easily compared to a list of previously considered examples.

## 2) Clarify that “Technical Fields” and “Improvements” Must Be Considered Broadly

Technological innovations are variously described as “pioneering”, “step-change”, “transformative” and “incremental” both inside and outside the Patent Office. The Wright Brothers’ flying machine was an “improvement” in transportation, but perhaps under PEG, in the view of some Examiners, not an “improvement” to aviation.

Examiners are clearly technically trained in their respective fields, but they are not omniscient. Thus, Patent Office leadership should encourage Examiners to interpret “technical fields” and “improvements” broadly, as our society stands on the threshold of massive technological advancement, and many technical disciplines that will promote that advancement are still in their infancy. After all, Congress established the Patent Office “to promote the progress of science and the useful arts by securing to inventors the exclusive right to their respective discoveries.”

We are grateful for the opportunity to present our views on this latest guidance and its impact on the U.S. patent system. We look forward to further interactions with the USPTO going forward.

Respectfully submitted,

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