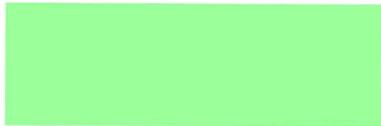


(b)(6)

U.S. Department of Homeland Security  
U.S. Citizenship and Immigration Services  
Administrative Appeals Office (AAO)  
20 Massachusetts Ave., N.W., MS 2090  
Washington, DC 20529-2090



U.S. Citizenship  
and Immigration  
Services



DATE: OCT 16 2013 OFFICE: TEXAS SERVICE CENTER

FILE: [REDACTED]

IN RE: Petitioner: [REDACTED]  
Beneficiary: [REDACTED]

PETITION: Immigrant Petition for Alien Worker as a Member of the Professions Holding an Advanced Degree or an Alien of Exceptional Ability Pursuant to Section 203(b)(2) of the Immigration and Nationality Act, 8 U.S.C. § 1153(b)(2)

ON BEHALF OF PETITIONER:



INSTRUCTIONS:

Enclosed please find the decision of the Administrative Appeals Office (AAO) in your case. This is a non-precedent decision. The AAO does not announce new constructions of law nor establish agency policy through non-precedent decisions.

Thank you,

  
Ron Rosenberg  
Chief, Administrative Appeals Office

**DISCUSSION:** The Director, Texas Service Center, denied the employment-based immigrant visa petition. The matter is now before the Administrative Appeals Office (AAO) on appeal. The AAO will sustain the appeal and approve the petition.

The petitioner seeks to classify the beneficiary under section 203(b)(2) of the Immigration and Nationality Act (the Act), 8 U.S.C. § 1153(b)(2), as a member of the professions holding an advanced degree. The petitioner, a biosimulation company, seeks to employ the beneficiary as a mathematical modeler. The petitioner asserts that an exemption from the requirement of a job offer, and thus of a labor certification, is in the national interest of the United States. The director found that the beneficiary qualifies for classification as a member of the professions holding an advanced degree, but that the petitioner has not established that an exemption from the requirement of a job offer would be in the national interest of the United States.

On appeal, the petitioner submits a brief from counsel.

Section 203(b) of the Act states, in pertinent part:

(2) Aliens Who Are Members of the Professions Holding Advanced Degrees or Aliens of Exceptional Ability. –

(A) In General. – Visas shall be made available . . . to qualified immigrants who are members of the professions holding advanced degrees or their equivalent or who because of their exceptional ability in the sciences, arts, or business, will substantially benefit prospectively the national economy, cultural or educational interests, or welfare of the United States, and whose services in the sciences, arts, professions, or business are sought by an employer in the United States.

(B) Waiver of Job Offer –

(i) . . . the Attorney General may, when the Attorney General deems it to be in the national interest, waive the requirements of subparagraph (A) that an alien's services in the sciences, arts, professions, or business be sought by an employer in the United States.

The director did not dispute that the petitioner qualifies as a member of the professions holding an advanced degree. The sole issue in contention is whether the petitioner has established that a waiver of the job offer requirement, and thus a labor certification, is in the national interest.

Neither the statute nor the pertinent regulations define the term “national interest.” Additionally, Congress did not provide a specific definition of “in the national interest.” The Committee on the Judiciary merely noted in its report to the Senate that the committee had “focused on national interest by increasing the number and proportion of visas for immigrants who would benefit the United States economically and otherwise. . . .” S. Rep. No. 55, 101st Cong., 1st Sess., 11 (1989).

Supplementary information to regulations implementing the Immigration Act of 1990, P.L. 101-649, 104 Stat. 4978 (Nov. 29, 1990), published at 56 Fed. Reg. 60897, 60900 (Nov. 29, 1991), states:

The Service [now U.S. Citizenship and Immigration Services (USCIS)] believes it appropriate to leave the application of this test as flexible as possible, although clearly an alien seeking to meet the [national interest] standard must make a showing significantly above that necessary to prove the “prospective national benefit” [required of aliens seeking to qualify as “exceptional.”] The burden will rest with the alien to establish that exemption from, or waiver of, the job offer will be in the national interest. Each case is to be judged on its own merits.

*In re New York State Dept of Transportation*, 22 I&N Dec. 215, 217-18 (Act. Assoc. Comm’r 1998) \*(*NYSDOT*), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, a petitioner must establish that the alien seeks employment in an area of substantial intrinsic merit. *Id.* at 217. Next, a petitioner must establish that the proposed benefit will be national in scope. *Id.* Finally, the petitioner seeking the waiver must establish that the alien will serve the national interest to a substantially greater degree than would an available U.S. worker having the same minimum qualifications. *Id.* at 217-18.

While the national interest waiver hinges on prospective national benefit, the petitioner must establish that the alien’s past record justifies projections of future benefit to the national interest. *Id.* at 219. The petitioner’s assurance that the alien will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The term “prospective” is included here to require future contributions by the alien, rather than to facilitate the entry of an alien with no demonstrable prior achievements, and whose benefit to the national interest would thus be entirely speculative. *Id.*

The regulation at 8 C.F.R. § 204.5(k)(2) defines “exceptional ability” as “a degree of expertise significantly above that ordinarily encountered” in a given area of endeavor. By statute, aliens of exceptional ability are generally subject to the job offer/labor certification requirement; they are not exempt by virtue of their exceptional ability. Therefore, whether a given alien seeks classification as an alien of exceptional ability, or as a member of the professions holding an advanced degree, that alien cannot qualify for a waiver just by demonstrating a degree of expertise significantly above that ordinarily encountered in his or her field of expertise.

The petitioner filed the Form I-140 petition on January 17, 2012. On the petition form, the petitioner stated that the petitioner’s job, as a mathematical modeler, is to “[c]onduct highly advanced applied mathematics research using cutting-edge theories and techniques of mathematical modeling and computational methods to solve complex problems in sciences, such as research in devastating human diseases.”

In an introductory statement that accompanied the petition, counsel stated that the beneficiary “possesses a degree of expertise that is extraordinary and . . . has benefited healthcare in well-

documented ways. The documentation of her extraordinary research over the years demonstrates that she has been highly influential in the field.”

Counsel stated that the beneficiary’s doctoral studies at [REDACTED]

focused on the development of mathematical models of HIV infection, scheduling optimal treatment policies, and estimating the efficacy of HIV drugs based on pharmacokinetics/pharmacodynamics data. Control and optimization techniques, statistical analysis, and stochastic simulations were the tools she used to study the complex dynamics of HIV infection. Furthermore, to reduce the computational cost of simulation, she investigated constant number [REDACTED] simulation as a novel method of stochastic simulation.

Counsel stated that the petitioning company

develops mathematical models encompassing biological pathways and interactions that span levels of detail from intracellular signaling pathways, cellular interactions, and organ systems up to the whole organism. [The petitioner’s] biosimulation technology provides a bridge between research, experiments, and trial design decisions and [the petitioner] builds predictive computer models based on biological mechanisms.

The petitioner submitted copies of four moderately-cited articles that the beneficiary published in three journals between 2008 and 2010. This evidence, dating from the beneficiary’s graduate studies, is not sufficient by itself to establish eligibility.

The petitioner submitted five witness letters in support of the initial filing. Dr. [REDACTED] the associate professor who supervised the beneficiary’s doctoral studies at [REDACTED] stated that the beneficiary’s “exceptional research skills played a significant role in investigating and analyzing HIV infection treatment.” Dr. [REDACTED] described, in technical detail, the beneficiary’s “development of mathematical models of Human Immunodeficiency Virus, HIV, infection in order to help better understand the dynamics of the disease and also estimate and evaluate the medication strategies for HIV infected patients.” The beneficiary developed models “to predict the viral load during the initial stage of the infection and determine the probability of viral eradication when a patient undergoes treatment,” and “focused on the events that take place once a virus particle has attached on the target cell and constructed intracellular mechanistic mathematical models of HIV and host cell dynamics.” Dr. [REDACTED] stated that the beneficiary’s “specific tool bridged the conceptual barrier between mathematics and biology understanding of HIV dynamics,” which “may circumvent the current limitations of pharmacodynamics models and predict the effect of drug policies based on in-vitro experiments. The significance of these results cannot be overstated, as they open the way to using optimization to identify medication concentrations.”

Professor [REDACTED] who served on the beneficiary’s dissertation committee, stated:

[The beneficiary's] fundamental research focused primarily on the development of computational algorithms that could predict biological outcomes. One of her most important model systems was HIV. Her first success was the development of an algorithm that would predict the course of infection under a variety of different conditions. She then went on to show that she could refine this algorithm to inform the response of HIV to drug therapy. Finally, the *pièce de résistance* was the development of the ability to predict outcomes of [REDACTED] treatment that suggest strategies for care that are different than currently employed in the clinic.

Professor [REDACTED] another member of the petitioner's doctoral dissertation committee, "also worked with her as a co-advisor on her comprehensive project, which involved the application of [REDACTED] to flame synthesis of aerosols." Prof. [REDACTED] asserted that the petitioner's work "has enhanced the current understanding of HIV infection dynamics and the interactions of virus with the host cells. Her research is critically important in designing new treatment regimens and optimizing the available resources and improves treatment effect for the patients and decreases the cost of care in the United States."

[REDACTED], identified previously as head of the petitioning company, stated:

[The petitioner] is a U.S.-based bio-simulation company that creates mechanistic mathematical models of biological systems to accelerate the development of drugs, clinical diagnostics and medical devices

[The beneficiary] has already produced valuable contributions to our modeling work associated with sepsis and acute illnesses, [and] patient management in the intensive care units. She has already taken a lead role with respect to the simulation and modeling of community acquired pneumonia and interabdominal surgical patients, two of the most common groups of patients who are at risk for severe sepsis. Her work to date has significantly furthered the goals of our work with our pharmaceutical customers as well as those of our critical care collaborators. . . .

[W]e are also engaged in the development of models for immune diseases such as rheumatoid arthritis and cancer.

Dr. [REDACTED] an associate professor at the [REDACTED] stated:

I came to know [the beneficiary] after she started working at [the petitioning company]. She has been heavily involved in developing mathematical models of human physiology and inflammatory diseases, specifically for sepsis. The models that have been developed of pneumonia and intrabdominal sepsis have applications in patient management in the intensive care setting. . . .

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Currently, the management of sepsis is based on relatively non-specific physiological metrics and laboratory values; the complexity of sepsis has resisted the effective translation of obtained mechanistic knowledge into clinical therapies. This is particularly true in the development and testing of putative drugs for sepsis. It is in this arena that [the petitioner] represents a significant step in the evolution of rational drug design and testing for the pharmaceutical community at large. The types of mechanistic computational models that [the beneficiary] is aiding to develop at [the petitioning company] represent the necessary bridge to improve the process by which useful and effective drugs are discovered, tested and brought to market.

[The beneficiary] has been a major part of the [petitioner's] team focusing on Sepsis modeling and treatment. Her background, expertise, and achievements which are not ordinarily encountered in the field of mathematical modeling of infectious and inflammatory disease, will continue to contribute to [the petitioner's] effort to develop more effective treatment strategies for patients in the critical care unit.

On June 30, 2012, the director issued a request for evidence, stating that the petitioner showed that the beneficiary "has published a few materials, for which she was cited a small number of times." The director also stated: "The evidence shows the beneficiary has acted within the scope of her professional duties," but her "professional skills do not appear to be so unique that they could not be articulated on a labor certification." The director acknowledged [redacted] s letter, but found that Mr. [redacted] "does not provide examples of how the beneficiary has influenced the field."

In response, the petitioner submitted additional witness letters. Dr. [redacted] assistant professor at the [redacted] stated:

I was asked to peer-review a journal article written by [the beneficiary] modeling the random events occurring after initial exposure to HIV. The article . . . presented an elegant and innovative mathematical model that serves as a framework for designing more effective protocols to prevent HIV infection following accidental needle-stick exposure. Her approach was brilliant and innovative, and I have adapted her methods in many of my subsequent works in modeling random events in HIV disease.

The petitioner had previously submitted a copy of an article by Dr. [redacted] citing the beneficiary's aforementioned article. In citing the beneficiary's work, Dr. [redacted] and his co-authors had called her work "[a]n excellent example of [stochastic] modeling."

Three additional letters discuss the beneficiary's more recent work for the petitioner as well as her earlier research at [redacted] in a five-page follow-up letter, provides substantially more detail than in his previous letter. Mr. [redacted] first described the beneficiary's graduate work, stating that the beneficiary owes her current success "to her previously highly influential work on human immunodeficiency virus (HIV)." Regarding the beneficiary's current work for the petitioner,

which “led to the development of a state-of-the-art unified model of human pathophysiology.” Mr. [REDACTED] stated:

[The beneficiary] has played a critical and leading role when working with our software team to develop a platform based on the above-mentioned model of pathophysiology of sepsis. . . .

[The beneficiary’s] research has led to a more effective interface to communicate model “predictions” to physicians in ICU [intensive care unit] settings. . . .

[The beneficiary’s] research has simulated a variety of real Pneumonia patients from various hospitals using the developed platform; analyzed the results and showed that the model simulation tracks the real patient data.

[The beneficiary’s] research has established the model’s ability to “predict” the patient status to come given the physiological parameters and treatment interventions up to the current time.

Mr. [REDACTED] added that the beneficiary’s “research is leading to additional innovations . . . such as investigating the application of the same technology to simulate other major categories of patients in the ICU,” and he asserted: “Through our collaboration with [REDACTED] we are developing a product based on the above-mentioned technology. . . . This product has extensive application in managing treatment of critically ill patients in the ICU.”

[REDACTED] president and chief medical officer of [REDACTED] Massachusetts, stated:

[The beneficiary’s] research has resulted in important advances in developing novel technologies in patient care, which are made through her extraordinary expertise not ordinarily encountered in the field. [The beneficiary’s] work has benefited the national interest of the United States by developing state of the art technology which improves patient treatment in the critical care environment and reduces the overall cost of hospitalization. Her research has advanced the development of sophisticated predictive instruments for patient monitoring through collaboration with Philips Healthcare.

Specifically, [the beneficiary] plays a critical role in our efforts to develop novel technologies with applications in managing critically ill patients in intensive care units. [REDACTED] is collaborating with [the petitioner] towards building devices which predict patient status into the future. This state of the art technology will assist intensivists and physicians in critical care units for the first time to evaluate trajectories of patients with severe sepsis and make better informed treatment decisions. [The beneficiary] is a key researcher and project lead at [the petitioning

company] and has directed technical discussions with [redacted] technical personnel. . . .

[The beneficiary's] research was essential in the creation of a model of human pathophysiology of sepsis. Her research resulted in breakthroughs in this field because:

- a) The model consists of all the major organ systems such as the kidney and renal system, the lung and breathing system, cardiac function and circulation, and the acute immune system. Together these systems provide knowledge of the patient's status under an acute inflammatory condition such as sepsis that is crucial to the intensivists and physicians.
- b) The model is capable of simulating response to various interventional therapies usually done in the Intensive Care Unit (ICU) such as fluid therapy, mechanical ventilation, vasopressors, diuresis, and dialysis to stabilize critically ill patients.
- c) Such a complex multi-scale model is built in a way which is not computationally extensive and it is possible to simulate a few days of a patient's trajectory in about one minute. This is crucially important for a technology which is intended to be used online at the hospital bedside.
- d) There have been extensive discussions with end users, intensivists and physicians, throughout the development process and the technology has been tailored in a way to best respond to their needs in ICUs all over the United States. . . .

[The beneficiary's] contributions have been instrumental in developing such needed technology to assist physicians in critical care environments and her continued high level scientific work is vital for successful completion of [redacted] and [the petitioner's] collaborative efforts.

Professor [redacted] of [redacted] a co-founder of the petitioning company, asserted that the beneficiary "is the leader of a multidisciplinary team at [the petitioning company] and is playing a critical role in the research and development of the company's state of the art technology. . . . [H]er role in the development of this novel software is critical."

The director denied the petition on November 30, 2012. The director acknowledged the intrinsic merit and national scope of the beneficiary's work, but found that the petitioner had not met the third prong of the *NYS DOT* national interest test. The director acknowledged the witness letters, but found that, "apart from [a] few instances [of citation], the record falls short of showing the beneficiary's work has impacted the field at large, and influenced the work of other mathematical modelers."

On appeal, counsel asserts that the director gave insufficient consideration to persuasive materials submitted in support of the petition. Credible witnesses have, as counsel asserts, provided specific details about the beneficiary's efforts, and explained why those efforts are important for the

petitioner's goals and for health care in general. The record as a whole corroborates the witnesses' assertions; they did not simply offer stock assertions that the beneficiary is skilled in an important area of research, and therefore will likely produce beneficial results at some point in the future.

The proprietary nature of the petitioner's work explains why the beneficiary does not produce significant published work. The petitioner, significantly, has not simply deemed its work proprietary and left it at that. Rather, the record contains credible, corroborated details about that work.

Except where a different standard is specified by law, a petitioner or applicant in administrative immigration proceedings must prove by a preponderance of evidence that he or she is eligible for the benefit sought. . . .

The "preponderance of the evidence" standard requires that the evidence demonstrate that the applicant's claim is "probably true," where the determination of "truth" is made based on the factual circumstances of each individual case. . . . Thus, in adjudicating the application pursuant to the preponderance of the evidence standard, the director must examine each piece of evidence for relevance, probative value, and credibility, both individually and within the context of the totality of the evidence, to determine whether the fact to be proven is probably true.

Even if the director has some doubt as to the truth, if the petitioner submits relevant, probative, and credible evidence that leads the director to believe that the claim is "more likely than not" or "probably" true, the applicant or petitioner has satisfied the standard of proof.

*Matter of Chawathe*, 25 I&N Dec. 369, 375-76 (AAO 2010). Following the above standard, the petitioner has met its burden of proof by a preponderance of evidence.

The evidence in the record establishes the significance of this petitioner's research, as opposed to the general area of research, and identifies specific benefits that continue to arise from her work. Therefore, on the basis of the evidence submitted, the petitioner has established that a waiver of the requirement of a job offer, and thus an approved labor certification, will be in the national interest of the United States.

In visa petition proceedings, it is the petitioner's burden to establish eligibility for the immigration benefit sought. Section 291 of the Act, 8 U.S.C. § 1361; *Matter of Otiende*, 26 I&N Dec. 127, 128 (BIA 2013). Here, the petitioner has met that burden.

**ORDER:** The appeal is sustained. The petition is approved.