



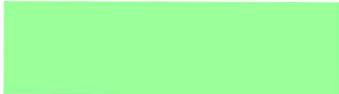
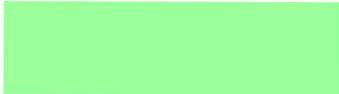
U.S. Citizenship
and Immigration
Services

(b)(6)



DATE: **JAN 09 2013**

Office: NEBRASKA SERVICE CENTER FILE: 

IN RE: Petitioner: 
Beneficiary: 

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:

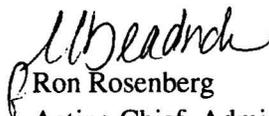
SELF-REPRESENTED

INSTRUCTIONS:

Enclosed please find the decision of the Administrative Appeals Office in your case. All of the documents related to this matter have been returned to the office that originally decided your case. Please be advised that any further inquiry that you might have concerning your case must be made to that office.

If you believe the AAO inappropriately applied the law in reaching its decision, or you have additional information that you wish to have considered, you may file a motion to reconsider or a motion to reopen in accordance with the instructions on Form I-290B, Notice of Appeal or Motion, with a fee of \$630. The specific requirements for filing such a motion can be found at 8 C.F.R. § 103.5. **Do not file any motion directly with the AAO.** Please be aware that 8 C.F.R. § 103.5(a)(1)(i) requires any motion to be filed within 30 days of the decision that the motion seeks to reconsider or reopen.

Thank you,


Ron Rosenberg

Acting Chief, Administrative Appeals Office

DISCUSSION: The employment-based immigrant visa petition was denied by the Director, Nebraska Service Center, and is now before the Administrative Appeals Office (AAO) on appeal. The appeal will be dismissed.

The petitioner seeks classification 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 seeks employment as an applied mathematician “conducting research in applied superconductivity and magnetic levitation.” At the time of filing, the petitioner was serving as an Executive Officer on the Board of Directors of [REDACTED] a family-owned company.¹ 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 petitioner 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 asserts that she will serve the national interest to a substantially greater degree than would an available U.S. worker having the same minimum qualifications, and thus she qualifies for the classification sought. The petitioner submits a brief with additional evidence. For the reasons discussed below, the AAO will uphold the director’s decision.

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.

¹ A letter submitted from the company on appeal identifies the [REDACTED] as Chairman of the Board of Directors, the [REDACTED], as President and Chief Executive Officer (CEO) serving on the Board of Directors, and the [REDACTED]

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, published at 56 Fed. Reg. 60897, 60900 (November 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 (NYSDOT), 22 I&N Dec. 215, 217-18 (Act. Assoc. Comm’r 1998), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, it must be shown that the alien seeks employment in an area of substantial intrinsic merit. *Id.* at 217. Next, the petitioner must show 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.

It must be noted that, while the national interest waiver hinges on *prospective* national benefit, it clearly must be established that the alien’s past record justifies projections of future benefit to the national interest. *Id.* at 219. The petitioner’s subjective assurance that the alien will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The inclusion of the term “prospective” is used 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 AAO also notes that 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 AAO concurs with the director's finding that the petitioner's work is in an area of intrinsic merit and that the proposed benefits of her work would be national in scope. It remains, then, to determine whether the petitioner will benefit the national interest to a greater extent than an available U.S. worker with the same minimum qualifications.

Eligibility for the waiver must rest with the alien's own qualifications rather than with the position sought. In other words, the AAO generally does not accept the argument that a given project is so important that any alien qualified to work on this project must also qualify for a national interest waiver. *Id.* at 218. Moreover, it cannot suffice to state that the alien possesses useful skills, or a "unique background." Special or unusual knowledge or training does not inherently meet the national interest threshold. The issue of whether similarly-trained workers are available in the United States is an issue under the jurisdiction of the Department of Labor. *Id.* at 221.

At issue is whether this petitioner's contributions in the field are of such unusual significance that the petitioner merits the special benefit of a national interest waiver, over and above the visa classification she seeks. By seeking an extra benefit, the petitioner assumes an extra burden of proof. A petitioner must demonstrate a past history of achievement with some degree of influence on the field as a whole. *Id.* at 219, n. 6. In evaluating the petitioner's achievements, the AAO notes that original innovation, such as demonstrated by a patent, is insufficient by itself. Whether the specific innovation serves the national interest must be decided on a case-by-case basis. *Id.* at 221, n. 7.

Along with copies of her published and presented articles, the petitioner submitted letters of support discussing her work.

[REDACTED]
states:

[The petitioner] obtained her Ph.D. in mathematics at [REDACTED] under my supervision in 2005 and was appointed [REDACTED] the following year. In my role as her Ph.D. supervisor, her continuing research mentor and collaborator, . . . I am very familiar with [the petitioner's] work and its importance to the national security and economic interests of the United States.

* * *

Along with a small group of [REDACTED] researchers that I also direct, [the petitioner] worked closely with me between 2005 and 2010 on the development of

computational methods that can be used to solve many problems currently out of reach of even the fastest current computers.

* * *

[The petitioner's] work primarily deals with both theoretical and highly practical questions concerning advanced adaptive [redacted] algorithms that will become, in the near future, the computational standards for modeling radiative transport. Along with a second person that I also trained, [redacted] [the petitioner] is a primary developer at [redacted] of a major new computational platform, the [redacted] to be used for both research and training by a broad community of biomedical researcher in the U.S. The [redacted] methods that we are developing form the core of the [redacted] software system which is deemed to be sufficiently important to have been featured prominently in the recent five year renewal of a major [redacted] grant that supports our [redacted]

* * *

[The petitioner] and I recently completed a one year research collaboration with [redacted] with the work there being led by [redacted] aimed at introducing these new [redacted] techniques into the [redacted] code [redacted] which is the world's most widely used radiative transport code. We have also collaborated with [redacted] in a proposal to the [redacted] to continue this work for an additional three years. [The petitioner] and I also collaborated with [redacted] a research biologist at [redacted] in a five year study to develop real-time computational methods in support of the laser cervical probe that she has pioneered for early detection of cervical cancer. Finally, our work was recognized by a grant awarded by the [redacted] to continue the theoretical and practical development of these new [redacted] algorithms.

[redacted] comments that the petitioner's work deals with ' [redacted] algorithms that will become, in the near future, the computational standards for modeling radiative transport.' [redacted] does not provide specific examples of how the petitioner's specific work has already impacted the field as of the date of filing. Eligibility must be established at the time of filing. 8 C.F.R. §§ 103.2(b)(1), (12); *Matter of Katigbak*, 14 I&N Dec. 45, 49 (Reg'l Comm'r 1971). A petition cannot be approved at a future date after the petitioner becomes eligible under a new set of facts. *Matter of Izummi*, 22 I&N Dec. 169, 175 (Comm'r 1998). That decision further provides, citing *Matter of Bardouille*, 18 I&N Dec. 114 (BIA 1981), that USCIS cannot "consider facts that come into being only subsequent to the filing of a petition." *Id.* at 176. [redacted] also indicates that the petitioner helped develop the [redacted] computational platform at [redacted] and that their project is funded by the [redacted]. In addition, [redacted] discusses his and the petitioner's collaborations with [redacted] and states that their work was recognized by a grant awarded by the [redacted] to continue the theoretical and practical development of new [redacted] algorithms. It can be argued, however, that most research, in order to receive funding, must present some benefit to

the general pool of scientific knowledge. It does not follow that every researcher working with a U.S. government grant inherently serves the national interest to an extent that justifies a waiver of the job offer requirement. The petitioner failed to submit supporting documentary evidence showing that her specific work on the [redacted] techniques represented groundbreaking advances that significantly impacted the field at large.

[redacted] states:

I collaborated with [the petitioner] and her supervisor [redacted] . . . on a research project with the goal of dramatically improving the calculational efficiency of [redacted] particle transport simulations. The project's success is changing the basic nature of [redacted] calculations from a slow convergence as the inverse square root of the computer time to an exponentially fast convergence.

* * *

Needless to say, changing the convergence rate involves numerous theoretical and practical challenges. [The petitioner's] advanced [redacted] research has been instrumental in overcoming these challenges.

Despite the fact that large numbers of people use [redacted] calculations to design almost every type of system involving radiation (e.g. nuclear medicine, nuclear power, and nuclear shielding), there are only a handful of people in the world with both the theoretical background and [redacted] expertise necessary to achieve exponential convergence. The U.S. needs to retain such exceptional talent as the health, safety, and economic impacts of better designs for nuclear systems are enormous. This comment is especially true with the nation's current energy problems and the resurgence of nuclear power.

[redacted] states that the petitioner worked on a project to improve the efficiency of [redacted] particle transport simulation, but he does not provide specific examples of how the petitioner's work at [redacted] has significantly influenced others in the field or is being applied by other mathematicians. [redacted] also comments on the limited number of people "with both the theoretical background and [redacted] expertise necessary to achieve exponential convergence." It cannot suffice, however, to state that the petitioner possesses useful skills, or a "unique background." Regardless of the alien's particular experience or skills, even assuming they are unique, the benefit the alien's skills or background will provide to the United States must also considerably outweigh the inherent national interest in protecting U.S. workers through the labor certification process. *NYSDOT*, 22 I&N Dec. at 221.

[redacted] states:

It was at the [redacted] of which I was the chairman that I learned about [redacted] research area is very broad with many applications to the energy, transportation, and defense areas.

* * *

[The petitioner's] thoroughness and deep understanding of these applications are demonstrated in her publications. Her strength is the ability to construct sophisticated, physics-based, computer models that can provide the basis for the design and construction of these advanced high technology systems. There are very few people in the technical community that have the background in the electromagnetics area that [the petitioner] possesses. These areas are critical for the U.S. to maintain a technology leadership position. Her unique research experience and technical background are essential for continuing these important research activities either at [redacted] or any other suitable private and/or government funded institution.

[redacted] points to the limited number of "people in the technical community that have the background in the electromagnetics area that [the petitioner] possesses." [redacted] also comments on the petitioner's "unique research experience and technical background." Once again, it cannot suffice to state that the alien possesses useful skills, or a "unique background." Special or unusual knowledge or training does not inherently meet the national interest threshold. The issue of whether similarly-trained workers are available in the U.S. is an issue under the jurisdiction of the Department of Labor. *Id.* at 221.

[redacted] states:

I have known [the petitioner] . . . since September 1998, when she joined [redacted] . . . to pursue her Doctoral Degree studies in Applied Mathematics. . . . As per her scholarship requirements, she was my teaching assistant for the Dynamical Systems class

* * *

As [the petitioner's] mentor I have advised her throughout her studies and have observed her progress; so when she approached me about being on her dissertation committee I gladly agreed. . . . Her thesis work has resulted in a comprehensive study publication on the subject of condensed history modeling in the prestigious [redacted]

* * *

I can also attest to [the petitioner's] recent outstanding work collaborating with [redacted] on developing exponentially convergent [redacted] algorithms. These algorithms for the radiative transport equation modeling are an

enabling tool for various applications that are in the national interests of the United States, such as nuclear reactor shielding, radiation therapy planning for cancer treatment, non-invasive cancer detection for biomedical optics and many more.

Moreover, [the petitioner's] current commitment to the mathematical modeling of electromagnetic effects is highly relevant to the development of technologies in such applications as clean transport and sustainable energy – these are unquestionably issues of national if not international importance. . . . I am certain that it would be detrimental to the U.S. national interests to require her immigration to be based on a particular employment offer – this would be too confining for her multifaceted research capabilities.

states that the petitioner's thesis work has resulted in a publication on the subject of condensed history modeling in but there is no documentary evidence showing that the petitioner's work is frequently cited or has otherwise significantly influenced her field. While the petitioner's research is no doubt of value, it can be argued that any research must be shown to be original and present some benefit if it is to receive funding and attention from the scientific community. Any Ph.D. thesis or postdoctoral research, in order to be accepted for graduation, publication, presentation, or funding, must offer new and useful information to the pool of knowledge. It does not follow that every researcher who performs original research that adds to the general pool of knowledge inherently serves the national interest to an extent that justifies a waiver of the job offer requirement. also states that "it would be detrimental to the U.S. national interests to require [the petitioner's] immigration to be based on a particular employment offer." U.S. Citizenship and Immigration Services (USCIS) acknowledges that there are certain occupations wherein individuals would have no U.S. employer to apply for an alien employment certification. While this fact will be given due consideration in appropriate cases, the inapplicability or unavailability of an alien employment certification cannot be viewed as sufficient cause for a national interest waiver; the petitioner still must demonstrate that she will serve the national interest to a substantially greater degree than do others in the same field. *Id.* at 218, n. 5.

states:

When [the petitioner] approached me requesting a supporting letter I remembered the held in – this is when I first learned about the work done by [the petitioner] and other members of research group. I was impressed by the variety of technologies . . . that are derived from and/or developed on the basis of the . . . I've followed and present evidence of [the petitioner's] contributions as an applied mathematician to the development of these technologies as demonstrated by these publications:

1.

Washington D.C., 2010.

[Redacted]

* * *

Upon receiving a request for this supporting letter I had a chance to evaluate these publications:

[Redacted]

* * *

The publications by [the petitioner] referenced above clearly demonstrate that she is an expert in [Redacted] simulations to the transport equation for biomedical optics applications – an expertise developed over her several years of post-doctoral work at [Redacted]

[Redacted] comments on the petitioner’s published and presented work, but there is no presumption that every published article or conference presentation demonstrates influence on the field as a whole; rather, the petitioner must document the actual impact of her article or presentation. In that regard, the petitioner submitted citation evidence reflecting an aggregate of two cites to her body of published and presented work. Specifically, her article entitled [Redacted] was independently cited to only once. In addition, the petitioner’s article entitled [Redacted] in [Redacted] was self-cited once by her coauthors [Redacted] and [Redacted]. Self-citation is a normal, expected practice. Self-citation cannot, however, demonstrate the response of independent researchers. The petitioner has not established that the single independent cite to her body of published and presented work is indicative of a notable influence on the field.

[Redacted] further states:

My most recent communication with [Redacted] – the company with which [the petitioner] is currently affiliated – was in September 2010 when I had a meeting with [Redacted] of the company. We discussed future directions in developing [Redacted] that the company will take. The company’s vision on ideas that are in high demand and serve the national interests of the United States has proven to be a far-sighted one – since then another new patent

application related to efficient energy extraction from ocean tides and waves has been submitted by the company.

states that the petitioner's company submitted patent applications "related to efficient energy extraction from ocean tides and waves." The evidence submitted by the petitioner includes two patent applications authored by her father, . Neither of these patent applications specifically identifies the petitioner as a co-inventor. Further, even if the petitioner were to establish that these inventions received a patent, the grant of a patent demonstrates only that an invention is original. Moreover, an alien cannot secure a national interest waiver simply by demonstrating that she holds a patent or that her company has filed two patent applications. Whether the specific innovation serves the national interest must be decided on a case-by-case basis. *Id.* at 221, n. 7. In this instance, there is no evidence indicating the extent to which the petitioner's company's inventions have been licensed by energy generation companies or successfully utilized in the industry. Thus, the impact of the inventions is not documented in the record. The record contains little in the way of specific evidence to show what measurable impact the petitioner has wrought in her field of endeavor. While the petitioner has published useful research and her company has filed for two patents authored by it can be argued that the petitioner's field, like most science, is research-driven, and there would be little point in publishing research which did not add to the general pool of knowledge in the field. Similarly, it has not been established that everyone who works for a company that applies for a patent for a useful invention inherently qualifies for a national interest waiver of the job offer requirement. Ultimately, the citation record and other documentary evidence submitted by the petitioner are not indicative of a notable influence in the field at the time of filing.

, states:

I first heard of through one of the technology review reports prepared for the I for which I serve as the Deputy Project Manager. These technology reviews were conducted to screen a number of proposals for the transport of Port containers using "green" technologies and to determine the applicability of each of these technologies on the advancements in demonstrated great promise and will continue to be considered for future applications in the . In the and along) in particular, diesel particulate matter (primarily coming from diesel trucks) is a leading cause of cancer. For the communities along finding a "green" alternative to the transport of containers by diesel trucks is a public health priority.

I believe [the petitioner's] research will help develop a technology that is applicable to the transport of cargo and that will therefore help reduce diesel emissions in the U.S.

states that advancements in "demonstrated great promise and will continue to be considered for future applications in the also claims that the petitioner's research "will

help develop a technology that is applicable to the transport of cargo and that will therefore help reduce diesel emissions in the U.S.” In the preceding instances, [REDACTED] comments on what could one day result from the petitioner’s work rather than providing specific examples of how her past research has already significantly impacted the field. A petitioner cannot file a petition under this classification based solely on the expectation of future eligibility. *Matter of Katigbak*, 14 I&N Dec. at 49.

[REDACTED] states:

My knowledge of [the petitioner’s] interests and capabilities in mathematics derive from the latter half of the six-month period of her student internship at the [REDACTED] [REDACTED] during the summer and fall of 1993. She was assigned to the Scientific Computing Group.

* * *

For the latter half of that period, she worked under my direct supervision on a miscellany of modeling and solution-algorithm development problems related to reactive flow in liquid propulsion systems.

* * *

During the first half of her term at [REDACTED] she performed various tasks designed to familiarize her with [REDACTED] computer network and a variety of software packages relevant to her overall participation in the group’s activities.

Since I am a physicist, my evaluation of her performance is based on her use of heuristics, rather than formal rigor. During our brief period of working together, she assisted me to develop and implement numerical solution methods to solve a very large system of nonlinear equations which constituted a lumped-parameter model of a reactive flow problem. She became very interested in the fact that graph-theoretic techniques were used to obtain representations of network configurations in forms canonical to the objective of enabling the stable, accurate numerical solution of very large systems of flow equations utilizing parallel processing methods. She used her understanding of basic matrix factoring and bordering algorithms to develop and implement an algorithm to mitigate the effects of ill-conditioning which are a consequence of the large disparities between the orders of magnitude of the natural time constants of interacting inertial and thermal phenomena.

[REDACTED] does not provide specific examples of how the petitioner’s work at [REDACTED] has influenced the field as a whole. Instead, [REDACTED] focuses on the tasks performed by the petitioner during her internship. Simple training in advanced technology or unusual knowledge, while perhaps attractive to the prospective U.S. employer, does not inherently meet the national interest threshold. *NYS DOT*, 22 I&N Dec. at 221.

The documentation initially submitted by the petitioner included an internet screenshot identifying her as a [REDACTED] system user and her name tag from the [REDACTED]. The petitioner asserts that the preceding items are documentation of her “membership in professional societies.” The petitioner has not established that having a [REDACTED] system online user profile and attending a mathematics conference constitute professional society memberships. Regardless, the AAO notes that professional association memberships relate to the regulatory criteria for classification as an alien of exceptional ability, a classification that normally requires an alien employment certification. 8 C.F.R. § 204.5(k)(3)(ii). The AAO cannot conclude that meeting one, two, or even the requisite three criteria for classification as an alien of exceptional ability warrants a waiver of the employment certification requirement in the national interest. By statute, “exceptional ability” is not, by itself sufficient cause for a national interest waiver. *Id.* at 218. Thus, the *benefit* which the alien presents to his field of endeavor must greatly exceed the “achievements and significant contributions” contemplated for that classification. *Id.*; *see also id.* at 222.

[REDACTED] states:

Developing efficient (fast and accurate) [REDACTED] methods has been a major theme of my work and is the subject of [the petitioner’s] research. The term condensed simulation means compressing several simulation steps into a super step in an attempt to bypass individual collisions and to shorten simulation run times. Prior to [the petitioner’s] paper, [REDACTED] I had seen condensation methods applied only to charged-particle transport. Thus her application of this approach to photons was completely novel. Condensation represents an approximation to the exact transport process and the associated error has traditionally been difficult to assess. [The petitioner] has developed a mathematically rigorous theory for condensed history photon [REDACTED] methods which indicates that by controlling the number, N , of angular moments of the phase function, one can control the accuracy of the condensed history simulation.

* * *

Due to algorithms that [the petitioner] has developed, researchers are now able to replace diffusion with more accurate computational tools in cancer detection research when full radiation transport modeling is prohibitively expensive. Enabling and facilitating cancer research is clearly important to the United States national interests. Furthermore, [the petitioner’s] research is of significance for biomedical optics research community as a whole, since this community requires photon transport in a variety of settings. Developing approximate [REDACTED] methods is an important area of research with a variety of applications, each of which is in the national interest, such as nuclear reactor engineering, biomedical optics, cancer therapy, and radiation planning.

* * *

I can testify that changing the rate of [redacted] convergence requires sophisticated mathematics, knowledge of an application at hand as well as substantial skills in software engineering. [The petitioner] has demonstrated amply those qualities in her paper [redacted] n this paper [the petitioner] has developed a geometrically convergent [redacted] algorithm based on sequential correlated sampling applied to a radiative transport problem with high heterogeneity in the energy variable. This paper has been published in the highly selective peer-reviewed [redacted]

[redacted] comments on the petitioner articles entitled [redacted] and [redacted] but the level of citation for these articles (one independent cite and one self-cite by the petitioner's coauthors, respectively) is not indicative of a notable influence in the field. [redacted] also discusses the general importance of developing approximate [redacted] methods. Assertions regarding the overall importance of the alien's area of expertise cannot suffice to establish eligibility for a national interest waiver. *Id.* at 220. As previously discussed, eligibility for the waiver must rest with the alien's own qualifications rather than with the position sought. In other words, we generally do not accept the argument that a given project is so important that any alien qualified to work on this project must also qualify for a national interest waiver. *Id.* at 218.

[redacted] states:

I was the editor handling the paper written by [the petitioner] et al., [redacted] now published in [redacted]

A novel, doubly adaptive, geometrically convergent algorithm has been suggested and tested on the extremely difficult transport problem due to high heterogeneity in the energy variable. The ideas presented in this paper are quite novel. I consider this paper a specific achievement by [the petitioner] that justifies projections of future benefit to the national interests because:

1. Very few researchers can achieve geometric convergence even on simplified model problems;
2. Realistic problems where [redacted] is the only method of solution are typically quite heterogeneous. In general, the medium in transport applications has heterogeneities in space, angle and energy.

* * *

[redacted] methods are slow in that you usually have to do four times as much computation to cut the error in half (or similarly, 100 times the work to improve by a factor of 10). . . . Geometrically convergent [redacted] algorithms, such as proposed by [the petitioner], change the rate of convergence. They get a virtuous cycle going

where greater accuracy at one step is used to devise a more accurate method for the next step, which in turn generates a more accurate answer. . . . [The petitioner's] research has been focused on particle transport applications, useful for applications in medicine and physics. I expect that the idea will be useful in other applications too, where similar underlying equations appear. That is adaptive Monte Carlo algorithms have the potential to make enormous improvements in other technical areas useful to U.S. industry and commerce.

* * *

[The petitioner's] original research and significant contributions to the field of geometrically convergent [redacted] methods will play a major role in solving many problems, for instance, inverse problems in biomedical optics, allowing early diagnosis of cancerous tissue.

[redacted] discusses the novel findings presented by the petitioner in her article entitled [redacted] but there is no documentary evidence showing that this article is frequently cited by independent researchers or that her findings have otherwise significantly influenced the field at large. [redacted]

[redacted] also states that the petitioner's [redacted] but he fails to provide specific examples of how the petitioner's original methods are already being successfully applied in medicine or industry. With regard to the witnesses of record, many of them they discuss what may, might, or could one day result from the petitioner's work, rather than how her past research has already influenced the field as a whole. As previously discussed, a petitioner cannot file a petition under this classification based solely on the expectation of future eligibility. *Matter of Katigbak*, 14 I&N Dec. at 49.

The director denied the petition finding that the petitioner failed to establish that a waiver of the requirement of an approved labor certification would be in the national interest of the United States. The director noted that while the petitioner's work "has promising possibilities," the submitted evidence did not "persuasively distinguish her from other capable researchers in the field."

On appeal, the petitioner submits a letter from [redacted]

As a founder of our company, . . . I claim that our intellectual property has been created and being owned by [redacted] [the petitioner] and myself; it is our property that cannot be transferred as a tangible and intangible property to any other company or individual, including those U.S. workers having the same nominal doctoral degree in applied mathematics as [the petitioner] has.

As a scientist and co-owner of our company, I claim that [the petitioner's] commitment to [redacted] business and the record of her prior achievements consisting of 5 (five) scholarly papers presented at various international conferences and subsequently accepted for

publication sets [the petitioner] apart of her peers. Moreover, since developing [redacted] technologies commercially requires a lot of money with potential profits being very high, the [redacted] technology is a very competitive business, where innovations are not shared openly in scholarly publications as much as in other fields. Instead, those innovations are reported at conferences and documented in patent applications. Hence, the mere fact of being invited for such conferences indicates novelty of our results and interest in our original research expressed by the community, i.e. our competitors.

The success of innovations owned by [redacted] both from the standpoint of science and business, crucially depends on [the petitioner] continued commitment to [redacted]

* * *

Sustainable energy generation alone, e.g., is the subject of research at many National Laboratories and Universities. However, precisely because these applications are so important to the U.S. National Interests, the jobs requiring expertise in mathematical modeling for these applications typically require permanent residency status. Also, the same holds true regarding eligibility for government funding, as this funding is being distributed through such governmental agencies as e.g., Department of Energy. Thus, [the petitioner's] expertise in mathematical modeling of levitation and superconductivity phenomena cannot be applied to the U.S. benefit, since in her current non-immigrant status she is not eligible for such jobs that match her expertise outside of [redacted]. Neither can she accelerate business development at [redacted] in her current status, as raising government funding for commercial development of [redacted] innovations is practically impossible in [the petitioner's] current status. Meanwhile, our company needs [the petitioner's] scientific expertise in furthering this research as well as her experience in obtaining government grants

[redacted] comments on the petitioner's published and presented work, but there is no evidence showing that her articles are frequently cited by independent researchers or that her findings have otherwise notably influenced the field as a whole. The AAO notes that many professional fields regularly hold meetings and symposia to present new work, discuss new findings, and to network with other professionals. These conferences are promoted and sponsored by professional associations, businesses, educational institutions, and government agencies. While presentation of the petitioner's work demonstrates that her findings were shared with others and may be acknowledged as original based on their selection to be presented, there is no documentary evidence showing that her presented work has significantly impacted the transportation industry or that the original [redacted] technologies that she developed have been implemented commercially. [redacted] also discusses the importance of mathematical modeling to sustainable energy generation, but as previously discussed, assertions regarding the overall importance of the alien's area of expertise cannot suffice to establish eligibility for a national interest waiver. *NYS DOT*, 22 I&N Dec. at 220. Finally, [redacted] points to the petitioner's expertise in mathematical modeling, her ability to accelerate business development, and her experience in obtaining governmental funding. Once again, it cannot suffice to state that

the alien possesses useful skills, or a “unique background.” Regardless of the alien’s particular experience or skills, even assuming they are unique, the benefit the alien’s skills or background will provide to the United States must also considerably outweigh the inherent national interest in protecting U.S. workers through the labor certification process. *Id.* at 221. The national interest waiver was not intended simply as a means for employers (or self-petitioning aliens) to avoid the inconvenience of the labor certification process. *Id.* at 223.

In a letter accompanying her appeal, the petitioner repeats information regarding her publication record, citation history, presentations, the novelty of her research, the governmental funding of her past projects, and the importance of her work in developing new technologies. The preceding information from the petitioner is not sufficient to demonstrate that a waiver of the requirement of an approved alien employment certification will be in the national interest of the United States. The petitioner also asserts that the limited number of cites to her published work should not preclude her eligibility for a national interest waiver. The AAO acknowledges that independent citations are not the only means by which to show the petitioner’s impact on her field. Letters of support can play a significant role in this respect. Here, however, the petitioner has submitted reference letters limited mostly to her professors and to individuals affiliated with institutions where she has studied or worked. While such letters are important in providing details about the petitioner’s role in various projects, they cannot by themselves establish her influence beyond her institutions and over the field as a whole. Moreover, simply listing the petitioner’s novel research findings cannot suffice in this regard, because all graduate students and postdoctoral researchers are arguably expected to produce original work.

The opinions of experts in the field are not without weight and have been considered above. USCIS may, in its discretion, use as advisory opinions statements submitted as expert testimony. *See Matter of Caron International*, 19 I&N Dec. 791, 795 (Comm’r. 1988). However, USCIS is ultimately responsible for making the final determination regarding an alien’s eligibility for the benefit sought. *Id.* The submission of letters from experts supporting the petition is not presumptive evidence of eligibility; USCIS may evaluate the content of those letters as to whether they support the alien’s eligibility. *See id.* at 795-796; *see also Matter of V-K-*, 24 I&N Dec. 500, n.2 (BIA 2008) (noting that expert opinion testimony does not purport to be evidence as to “fact”). Thus, the content of the experts’ statements and how they became aware of the petitioner’s reputation are important considerations. Even when written by independent experts, letters solicited by an alien in support of an immigration petition are of less weight than preexisting, independent evidence that one would expect of an applied mathematician who has influenced the field as a whole.

While petitioner has performed admirably on the research projects to which she was assigned, she has not established that her past record of achievement is at a level that would justify a waiver of the job offer requirement which, by law, normally attaches to the visa classification sought by the petitioner. The AAO notes that the petitioner need not demonstrate notoriety on the scale of national acclaim, but the national interest waiver contemplates that her influence be national in scope. *NYS DOT*, 22 I&N Dec. at 217 n.3. More specifically, the petitioner “must clearly present a significant benefit to the field of endeavor.” *Id.* at 218. *See also id.* at 219 n.6

(the alien must have “a past history of demonstrable achievement with some degree of influence on the field as a whole.”)

As is clear from a plain reading of the statute, it was not the intent of Congress that every alien of exceptional ability should be exempt from the requirement of a job offer based on national interest. Likewise, it does not appear to have been the intent of Congress to grant national interest waivers on the basis of the overall importance of a given occupation, rather than on the merits of the individual alien. On the basis of the evidence submitted, the petitioner has not established that a waiver of the requirement of an approved alien employment certification will be in the national interest of the United States.

The burden of proof in these proceedings rests solely with the petitioner. Section 291 of the Act, 8 U.S.C. § 1361. The petitioner has not sustained that burden.

ORDER: The appeal is dismissed.