



U.S. Citizenship
and Immigration
Services

(b)(6)

DATE: **MAR 08 2013**

OFFICE: TEXAS SERVICE CENTER

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:

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 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 dismiss the appeal.

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 a research assistant professor at [REDACTED] Houston. The petitioner's recent work has involved the Padé approximant, a mathematical function used to extrapolate beyond a known data set. 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 submits a brief from counsel and copies of previously submitted materials.

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, 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 (NYS DOT), 22 I&N Dec. 215 (Act. Assoc. Comm'r 1998), has set forth several factors which must be considered when evaluating a request for a national interest waiver. First, the petitioner must show that the alien seeks employment in an area of substantial intrinsic merit. Next, the petitioner must show that the proposed benefit will be national in scope. Finally, the petitioner establish that the alien will serve the national interest to a substantially greater degree than would an available United States worker having the same minimum qualifications.

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. The petitioner's subjective assurance that the alien will, in the future, serve the national interest cannot suffice to establish prospective national benefit. The intention behind the term "prospective" is 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.

The USCIS 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 23, 2012. In an introductory statement, counsel stated:

[The petitioner] has the capacity for making substantial contributions to the U.S. by and through his expertise and skills in the filed [*sic*] of Computational and Mathematical Physics, particularly, nonlinear quantum dynamics and data analysis, the latter having applications in submarine detection, gravitational waves detection, water leaks detection in urban distribution networks, early detection of structural faults in mechanical systems, e.g., (military) helicopter engines and oil drilling equipment. . . .

Beneficiary is an internally [sic] recognized expert in the field [sic] of Mathematical Physics for his expertise and skills in data analysis, and in particular in Padé Approximants of Z-transforms of data analysis, and nonlinear quantum dynamics. Beneficiary is currently working as Research Professor at [REDACTED]

Beneficiary has been working on Padé Approximants and their applications for more than 10 years. Since 2007, he has been working on their application to data analysis problems, obtaining new and fundamental results, such as the universal properties of pure [sic] noise Padé Approximants and lately the characteristic way a deterministic signal perturbs them. Beneficiary has also been working in the field of nonlinear quantum dynamics for the last 25 years, both with experimental and theoretical groups, concentrating in particular on the various regimes of interaction of Rydberg atoms (both Hydrogen and Alkali Metal ones) with microwaves. He is currently researching different schemes to accelerate de-excitation of anti-hydrogen atoms. . . . [M]easurement of the ground state energy of these atoms is very important in fundamental physics.

Recently, Beneficiary made a breakthrough in the field [sic] of data analysis by devising a new method to detect weak signals in highly noisy environments by their effect on these same properties of the noise itself. The essential applications of his new method of detecting signals in heavy noise surroundings include:

- Detection of the breaking of helicopters['] shafts that emit specific vibrations before breaking. . . .
- Interest to the [REDACTED] . . .
- A [REDACTED] sub award for the detection of Gravitational Waves emitted by Black Holes located at the center of galaxies.
- A [REDACTED] sub award grant again for the detection of Gravitational Waves.
- Future applications to reduce the number of false positive and/or false negative [results] in Magnetic Resonance Spectroscopy for breast and brain cancer.

Counsel stated that the petitioner qualifies for the waiver because his H-1B nonimmigrant status "precluded [him] from fully participating in the projects for the US Department of Defense," and because his "qualifications . . . cannot be articulated in the labor certification process."

The petitioner submitted partial copies of 12 journal articles published between 1988 and 2011. Counsel stated that these articles represent important contributions to the petitioner's field, but the petitioner did not submit documentary evidence (such as citation data) to establish the impact of his published work. Instead, the petitioner submitted several witness letters. The AAO will discuss representative examples of the letters below.

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[redacted] described himself as "an internationally renowned Mathematical Physicist with over one hundred and twenty referred publications and over *fourteen hundred citations* referenced in the Science Citation Index." The petitioner's submission of this letter reflects awareness that heavy citation can be a measure of the impact of a researcher's published work. Nevertheless, the petitioner submitted no information regarding the citation of his own work.

[redacted] stated:

I have been collaborating with [the petitioner] for eleven years, starting in the year 2000. At the time, we were working on the design of semi-conductors hetero-structures. Rapidly, we moved to the field of data analysis corrupted by heavy noise.

Recently, [the petitioner] made a breakthrough in the field of Data Analysis. Any expert of the field will tell that it is impossible to detect a random signal below the noise level. The extremely original approach of [the petitioner] is based on the idea to focus on the noise rather than on the signal and look how the signal perturbs the noise universal properties in the complex plane. When a change is detected in the noise distribution this indicates the presence of a signal that can be furthermore isolated and studied. The sensitivity of this entirely new approach is at least ten times better than any traditional method. . . .

[The petitioner] is the cornerstone of three projects we have for the moment/ [sic] [redacted] for helicopter shaft breakdown prevention.

I hope to have him collaborating with the Navy as soon as he will get US residency.

His method will have direct applications to nuclear Submarine Detection.

In a separate letter, [redacted] elaborated on two projects with national defense implications:

Browsing through professional literature, a scientist working for [redacted] got intrigued by reading about the extremely powerful results presented in one of [the petitioner's] publications. He was so interested about his work that he immediately offered [redacted] a research contract to carry on the research pioneered by [the petitioner]. The problem they have at [redacted] is the detection on [sic] an early stage of eventual catastrophic failure of helicopter rotor blade. . . . The experts at [redacted] knew that traditional Digital Signal Processing are [sic] of very little help for their problem, and they hope that the innovative approach to noise filtering presented in [the petitioner's] paper will help them achieve crucial progress in solving this problem.

¹ Sic. [redacted] apparently meant to refer to the [redacted].

The second example pertains to nuclear submarine navigation and target detection technology.

. . . The superior technique he proposes is able to work for both active and passive detection. Moreover, coherent detection of signals recorded in multistatic configurations will automatically guarantee several orders of magnitude improvements in detection capabilities. This accomplishment, never achieved before, would be possible only by using a matrix extension of [the petitioner's] research. I don't see any way in which the results promised in our proposal could be delivered without [the petitioner's] contribution.

Professor [redacted] stated:

I have known [the petitioner] for more than twenty-five years now, since when he was a student under my guidance in the [redacted] and I have seen him constantly grow in competence and academic recognition during all these years.

[The petitioner] completed his laurea thesis (the equivalent of a master) in the eighties, with a theoretical work on the explanation of the puzzling results (for the time) of the experiments on microwave excited hydrogen atoms that had just been performed by the research group of [redacted] in the U.S. In this work, he collaborated tightly with me to test and run a numerical code for the simulation of such physical system, that was at the forefront of research. The results of this work lead [*sic*] to important publications that had vast resonance in the field of atomic physics, since they first explained the dynamical phenomena at work in these systems.

Soon after completing his laurea's thesis with me, [the petitioner] went on to graduate school in [redacted] to work directly with [redacted] . . . to complete a comprehensive on the application of dynamical techniques to atomic physics (namely, the widespread use of Husimi transforms). The importance of this work cannot be overstated: it gives means of visualizing the quantum distributions in such a way that they can be compared with the classical distributions. [The petitioner] used these tools to visualize the new phenomena that we had discovered in atomic physics: dynamical quantum localization, strong field ionization, stabilization, and so on.

[redacted] whom the petitioner listed as a reference on his *curriculum vitae*, stated:

In my thirty-year long experience with talented people, [the petitioner] stands out: He shows remarkable gifts in research on the theory of nonlinear dynamical systems and its application to complex systems. Nonlinear dynamical theory . . . is directly related

to nearly all high-tech sectors which have a top priority in the US national interest. Any advance in nonlinear theory will surely bring a major impact on science and technology.

. . . In his [doctoral] thesis, [the petitioner] solved the key problem of atomic physics and nonlinear mechanics of the time, namely the quantum mechanical manifestation of chaotic dynamics in a real, experimentally accessible atom, namely hydrogen. His work opened the floodgates to a new field, namely chaos in atomic physics, and many researchers in this field owe a great debt to [the petitioner's] pioneering work.

provided lengthy, technical descriptions of the petitioner's work, and asserted: "To make all these substantive contributions in such a short period of time is far beyond the capability of typical young researchers at comparable stages of their careers."

stated:

We have met at several conferences, and have had many discussions and very interesting exchanges of opinions about a new method for filtering noisy time series with signals from damped oscillators. . . .

In this method a very ingenious use is made of a phenomenon in Padé approximation that is known under the name of Froissart doublets. . . . This new approach is extremely interesting in my opinion and also very promising to become an attractive alternative in future to the presently dominant tools from harmonic analysis in the area of filtering techniques. Of course, the research is still in its early days, but if things turn out positive, then it will have a great impact in the development of spectral analysis of highly noisy time series.

The director issued a request for evidence on May 17, 2012. The director acknowledged the petitioner's submission of witness letters, but observed that the witnesses tended to describe the petitioner's work in terms of its potential rather than its proven impact. The director stated: "While some witnesses indicate that you have useful ideas in your field, the effectiveness of your method(s) has not been strongly established. The suggestion that such methods might, possibly at some future date, be beneficial is not sufficient to establish eligibility for a national interest waiver." The director requested documentary evidence of the petitioner's past impact and influence on his field.

In response to the request for evidence, the petitioner submitted partial copies of various scholarly articles which, according to counsel, "demonstrate the proven effectiveness and benefits of the applications of Padé Approximant method" in terms of distinguishing data from noise. The issue, however, is not whether the Padé approximant is a useful mathematical tool. That issue speaks to substantial intrinsic merit, which the director has not questioned in this proceeding. There exists no blanket waiver for physicists and/or mathematicians who are familiar with the use of the Padé approximant in distinguishing signal from noise. The petitioner did not create or define the Padé

approximant, and therefore general discussions of its utility say nothing about the petitioner's contributions to his field. The submitted article excerpts do not mention the petitioner's work, and therefore they do not establish the significance or impact of the petitioner's past work in his field.

Rather than provide documentary evidence of his past impact or influence on his field, the petitioner submitted additional witness letters.

stated:

[The petitioner] is a key member of the group headed by [redacted] which . . . has been developing a new filtering technique in the data analysis of weak signals in heavy noise. [The petitioner] conceived the most innovative aspect of this new technique, consisting in inverting the traditional prospective [*sic*] and considering the signal as a perturbation of the noise. . . . Preliminary results indicate that this new technique can substantially increase detection probabilities. Extensive statistical tests are under way to quantify the advantage on [*sic*] traditional methods. . . .

As evidenced from my continued financial support of it, I believe that the research [the petitioner] is conducting in data analysis will result in solid advantages, not only to my field of research but also in practical applications wherever weak signals have to be extracted from overwhelming noise, as for example in medical imaging.

Like the initial letters, [redacted] letter does not indicate that the petitioner's work has already had demonstrable impact on the field. Rather, the letter indicates that testing is underway to confirm the effectiveness of the petitioner's methods.

Another of the petitioner's collaborators discussed the research team's ongoing work in terms of what the group hopes or expects to achieve.

stated:

[The petitioner's] background enabled him to create an application that separates signal from noise in certain astrophysics applications (namely, detecting gravitational waves). My collaboration with [the petitioner] aims to refine this method into a much more accurate way of reading and interpreting the structure of biological rhythms, such as those that are recorded in electroencephalograms (EEGs). These recordings are used to diagnose epilepsy and a host of abnormalities in children, but the data are difficult to interpret. [The petitioner's] approach promises to discern the signal in a more sensitive and accurate way. It is an ingenious application of an elegant mathematical theorem developed in the 20th century in France, which has not been applied to biological data before. . . .

Based on our preliminary results, we are currently working on a grant application to the [redacted] I sincerely believe that a successful development of this method could shed considerable light on several puzzling phenomena in neuroscience, and I expect that

the work will have a major impact on both scientific research and on public health care in the United States.

In sum, [the petitioner's] work promises to advance our research enterprise, our public health, and our biotechnology industry.

[redacted] who first collaborated with the petitioner under [redacted] in 1997, provided an overview of the petitioner's past work. [redacted] stated that the petitioner's "results in Chaos Theory as applied to atomic physics represent a major advance in this field, as demonstrated by the number of prestigious publications, conference presentations and citations. . . . [H]is work in atomic physics is widely recognized by the peers in his group." The petitioner has not documented the citation of his work or provided objective evidence of this claimed widespread recognition. Going on record without supporting documentary evidence is not sufficient for purposes of meeting the burden of proof in these proceedings. *Matter of Soffici*, 22 I&N Dec. 158, 165 (Comm'r 1998) (citing *Matter of Treasure Craft of California*, 14 I&N Dec. 190 (Reg'l Comm'r 1972)). [redacted] discussed other potential applications of the petitioner's work, while making it clear that significant technical hurdles remain before the applications are viable.

[redacted] an associate professor at the [redacted] knew the petitioner during the petitioner's studies there. [redacted] stated that the petitioner's more recent "findings and procedures . . . have been indeed widely appreciated, and they also look very promising for further applications to physically fundamental questions, where high noise level prevents simple and direct analysis of experimental data." Like other witnesses, [redacted] stated that this research is unfinished and that further progress depends upon the petitioner's continued involvement.

One of [redacted] collaborators, Professor [redacted] director of the [redacted] [redacted] has "known [the petitioner] since 1989." Prof. [redacted] stated that the petitioner's research "on control and transport in classical and quantum nonlinear dynamics . . . is very promising."

The director, in the request for evidence, had specified that the petitioner must establish "specific prior achievement with some degree of influence on the field as a whole," and that the promise of future benefit is not, by itself, sufficient to warrant the waiver. Nevertheless, the second group of witness letters once again focused on the potential future benefits that may result from the petitioner's ongoing research.

The director denied the petition on October 29, 2012, stating: "The fact that the petitioner may play an important role in Padé Approximants and their applications is insufficient to establish eligibility for a job offer waiver based on national interest." The director acknowledged the intrinsic merit of the petitioner's occupation, and the national scope of the benefit arising from the work, but found that the petitioner had not met the third prong of the *NYS DOT* national interest test.

On appeal, counsel states:

In the past 30 years, [the petitioner] has made significant and substantial contributions to data analysis and nonlinear quantum dynamics, which are applied in submarine detection, cancer detection, gravitational wave detection, water leak detection in urban distribution networks, early detection of structural faults in mechanical systems, e.g. helicopter engines and oil drilling equipment, directly benefitting the national defense, health, space program and energy industries.

The record does not show that the petitioner's findings "are applied" in the ways listed above. Rather, the record indicates that testing is underway to determine whether or not the petitioner's work will lead to improvements in those areas. The petitioner need not already have achieved every one of his goals in order to qualify for the waiver, but he must establish a past history of influential accomplishment to justify the prediction that he will achieve those goals.

Counsel quotes several of the witness letters at length, stating that the witnesses "specifically address[ed] why the Petitioner's employment would benefit the national interest to a substantially greater degree than a similarly qualified U.S. workers" [sic].

The Board of Immigration Appeals (BIA) has held that testimony should not be disregarded simply because it is "self-serving." See, e.g., *Matter of S-A-*, 22 I&N Dec. 1328, 1332 (BIA 2000) (citing cases). The BIA also held, however: "We not only encourage, but require the introduction of corroborative testimonial and documentary evidence, where available." *Id.* If testimonial evidence lacks specificity, detail, or credibility, there is a greater need for the petitioner to submit corroborative evidence. *Matter of Y-B-*, 21 I&N Dec. 1136 (BIA 1998).

The opinions of experts in the field are not without weight and have received consideration 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, as above, evaluate the content of those letters as to whether they support the alien's eligibility. USCIS may even give less weight to an opinion that is not corroborated, in accord with other information or is in any way questionable. See *id.* at 795; see also *Matter of V-K-*, 24 I&N Dec. 500, 502 n.2 (BIA 2008) (noting that expert opinion testimony does not purport to be evidence as to "fact"). See also *Matter of Soffici*, 22 I&N Dec. 158, 165 (Comm'r 1998) (citing *Matter of Treasure Craft of California*, 14 I&N Dec. 190 (Reg'l Comm'r 1972)).

In this instance, the director had previously acknowledged the witness letters, and instructed the petitioner to submit first-hand evidence to substantiate the claims therein. The petitioner had responded with additional letters and evidence that did not relate directly to the petitioner's work. Many of the letters are not lacking in detail, but those details concern what the petitioner hopes to accomplish, rather than the progress he has made toward achieving those goals. Witnesses have

asserted that the petitioner has earned an international reputation, but the only evidence of that reputation is in the form of letters from witnesses whom the petitioner has selected. One witness's uncorroborated reference to citation of the petitioner's published work amounts to a claim, rather than evidence in support of that claim.

The petitioner has established that he made a positive impression on his mentors and collaborators over the course of his career thus far. In terms of the petitioner's past work, those witnesses have provided details about what the petitioner has studied, but not that his work has had an impact and influence at a level that would justify a national interest waiver. Their expectations about what the petitioner will achieve in the future are, by nature, speculative, and have negligible weight as evidence. At best, the waiver application appears to be premature, predicated not on what the petitioner has accomplished, but on what he intends to accomplish once he is a permanent resident of the United States.

As is clear from a plain reading of the statute, it was not the intent of Congress that every person qualified to engage in a profession in the United States 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 profession, 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 labor 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.