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U.S. Department of Homeland Security

Bureau of Citizenship and Immigration Services

identifying data deleted to prevent clearly unwarranted invasion of personal privacy

ADMINISTRATIVE APPEALS OFFICE
425 Eye Street N.W.
ULLB, 3rd Floor
Washington, D.C. 20536

[Redacted]

File: WAC 01 260 53911 Office: CALIFORNIA SERVICE CENTER

Date: MAR 19 2003

IN RE: Petitioner:
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:

[Redacted]

PUBLIC COPY

INSTRUCTIONS:

This is the decision in your case. All documents have been returned to the office that originally decided your case. Any further inquiry must be made to that office.

If you believe the law was inappropriately applied or the analysis used in reaching the decision was inconsistent with the information provided or with precedent decisions, you may file a motion to reconsider. Such a motion must state the reasons for reconsideration and be supported by any pertinent precedent decisions. Any motion to reconsider must be filed within 30 days of the decision that the motion seeks to reconsider, as required under 8 C.F.R. § 103.5(a)(1)(i).

If you have new or additional information that you wish to have considered, you may file a motion to reopen. Such a motion must state the new facts to be proved at the reopened proceeding and be supported by affidavits or other documentary evidence. Any motion to reopen must be filed within 30 days of the decision that the motion seeks to reopen, except that failure to file before this period expires may be excused in the discretion of the Bureau of Citizenship and Immigration Services (Bureau) where it is demonstrated that the delay was reasonable and beyond the control of the applicant or petitioner. *Id.*

Any motion must be filed with the office that originally decided your case along with a fee of \$110 as required under 8 C.F.R. § 103.7.

Robert P. Wiemann, Director
Administrative Appeals Office

DISCUSSION: The employment-based immigrant visa petition was denied by the Director, California Service Center, and is now before the Administrative Appeals Office on appeal. The appeal will be sustained and the petition will be approved.

The petitioner seeks classification pursuant to 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 petitioner¹ seeks employment as a researcher in chemistry. 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 the classification but concluded that he had not established that an exemption from the requirement of a job offer would be in the national interest of the United States.

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

(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) Subject to clause (ii), the Attorney General may, when the Attorney General deems it to be in the national interest, waive the requirement 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 petitioner obtained a Master of Science degree in chemistry from Stanford University in June 2001. At the time the petition was filed in July 2001, the petitioner was employed as a research assistant at Stanford. The petitioner's occupation falls within the pertinent regulatory definition of a profession. The petitioner thus qualifies as a member of the professions holding an advanced degree.

The remaining issue is whether the petitioner has established that a waiver of the job offer requirement, and thus a labor certification, is in the national interest.

¹ The petitioner was initially represented by counsel; however, the petitioner filed the appeal himself. A copy of this decision will be mailed to the petitioner's counsel as a courtesy.

Neither the statute nor 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 pertinent regulations implementing the Immigration Act of 1990 (IMMACT), published at 56 Fed. Reg. 60897, 60900 (November 29, 1991), states:

The Service 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.

Matter of New York State Dept. of Transportation, 22 I & N Dec. 215 (Comm. 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. Next, it must be shown that the proposed benefit will be national in scope. 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.

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. 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.

Eligibility for the waiver must rest with the alien's qualifications rather than with the position sought. It is generally not accepted that a given project is of such importance that any alien qualified to work on it must also qualify for a national interest waiver. The 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 sought. 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.

We concur with the director that the petitioner's research relating to cytochrome C oxidase has intrinsic merit. We also concur that the proposed benefits of his research would be national in scope. The remaining determination is whether the petitioner will serve the national interest to a

substantially greater degree than would an available U.S. worker having the same minimum qualifications.

The petitioner submits over forty witness letters in support of his petition, including endorsements from four Nobel Laureates. [REDACTED] a professor at the College de France and 1987 Nobel Laureate in Chemistry, states:

[The petitioner's] elegant work on porphyrin complexes of rhodium is a major contribution to coordination chemistry of exotic rhodium(II). Its impact is that it removes two major roadblocks in attempts to develop rhodium-porphyrin based catalysts for manipulations of some inert compounds, such as methane in the natural gas.

* * *

[The petitioner's] biomimetic work on cytochrome oxidases substantially advances the knowledge of this critical class of enzymes. These enzymes control respiration and energy generation. Both processes occupy a central role in human physiology, making cytochrome oxidase very important for normal functioning of a human organism as well as possible culprits in some pathological conditions.

* * *

Most importantly, his research does not simply extend prior work but challenges some accepted dogmas, thereby opening new exciting directions in the respective fields. For example, his results on rhodium(II) porphyrin complexes proved that the long-believed instability of these species in the presence of certain reactive chemicals is not real. Likewise, while synthetic models of cytochrome oxidases have yielded significant structural information about these enzymes, [the petitioner's] work is probably the only biomimetic study so far that provides direct insights into the ultimate question in this field – how cytochrome oxidases work. Finally, his synthesis of a high-order bond between molybdenum and rhenium shows that these rare interactions are not limited to a single group with the periodic table – a notion that has been accepted in this field for a long while.

[REDACTED] a professor of chemistry and Director of Loker Hydrocarbon Research Institute at the University of California and winner of the Nobel Prize in Chemistry in 1994, describes the petitioner's work:

I have followed the research work of [the petitioner] quite closely, as it overlaps with my own research activities and I am much interested in his work under the guidelines of Professor [REDACTED] of Stanford. I particularly would like to emphasize [the petitioner's] contributions to the fundamental problems of hydrocarbon activation, since it contributes to finding solutions that are badly

needed to help our fuel-energy problems.

* * *

Specifically, [the petitioner's] research on coordination chemistry of porphyrin-stabilized rhodium(II) is important for developing these reagents into practical hydrocarbon activating catalysts. . . . Rhodium(II) porphyrin complexes have attracted considerable attention due to the ease with which they react with methane and other hydrocarbons. However, these metal complexes are also known to be incompatible with most potential derivatizing chemicals, thereby precluding use of porphyrinorhodium complexes as methane activation catalysts. [The petitioner] has found that some quite reactive derivatizing chemicals neither inhibit nor decompose the rhodium(II). He has also proposed a hypothesis as to what properties of a derivatizing reagent and the porphyrin ligand cause decomposition of the rhodium(II). These accomplishments constitute an important basis on which development of a porphyrinorhodium(II)-based hydrocarbon activation catalyst becomes possible.

K. Barry Sharpless, a professor of chemistry at the Scripps Research Institute, Nobel Laureate in Chemistry in 2001, and an elected member of the National Academy of Sciences, states:

This past February during a symposium at Scripps I heard Professor Collman give a lecture concerning the spectacular results that [the petitioner], his Ph.D. student, has achieved in designing, synthesizing, and studying an artificial enzyme system that imitates not only the structure but also the function of cytochrome C oxidase. Over the last three decades, I have been aware of the complicated, highly significant problem of oxygen reduction, but these new results represent a vast improvement of all earlier work on this subject. The synthetic chemistry alone represents a remarkable achievement – especially the development of new synthetic methods to attach imidazole groups to a porphyrin, followed by the selective introduction of two different metals, iron and copper, into this complex ligand array. The final product, synthesized in a highly efficient manner, closely resembles the active site of cytochrome C oxidase. This new synthetic effort dwarfs all of the extensive prior work that has attempted to produce molecules that are structurally related to cytochrome C oxidase.

* * *

I was even more impressed by the electrocatalytic results that [the petitioner] has achieved and by his quantitative mathematical analysis of this catalytic reduction of molecular oxygen. Specifically, he has shown how oxygen can be reduced to water without releasing toxic, partially reduced oxygen species such as superoxide ion and hydrogen peroxide. Moreover, [the petitioner] has demonstrated the role that the copper ion plays in controlling this selective 4-electron, catalytic reduction of

oxygen. Avoiding production of partially reduced oxygen intermediates is very significant in a medical sense, because malfunction of cytochrome C oxidase causes cardiovascular disease. This blend of synthetic mechanistic chemistry that also clarifies an important medical problem is highly unusual for any scientist.

* * *

I'd like to point out that [the petitioner's] other work on metalloporphyrins summarized in four outstanding papers recently published in leading chemical journals, is also highly significant, both scientifically and with respect to its potential effect on the energy research.

██████████ a professor and chairman of the chemistry department at Stanford as well as a 1983 Nobel Laureate in Chemistry, describes the petitioner's work:

[The petitioner's] mentor, Professor ██████████ is at the forefront, worldwide, of research on the chemistry of metal-containing porphyrins. To give an idea of the significance of this area of research, I need only mention that hemoglobin, chlorophyll and a number of important enzymes are examples of such species. A very important advance made by [the petitioner] in this field is that he disproved the widely held notion that a particular very reactive porphyrin, that with Rh(II) at its center, is too unstable to be studied conveniently. Though as [the petitioner] showed, while, on modification, it is stable enough to be amenable to systematic study, it remains reactive enough so as to be a candidate for reaction with methane.

* * *

[The petitioner's] work on terminal oxidases, a class of enzymes ultimately responsible for respiration, contributes substantially to our knowledge of oxygen metabolism and oxidative stress – the culprit behind aging and many attending disorders. As an added benefit, his work extends our understanding of electrocatalytic reduction of dioxygen, bringing us closer to developing an economically viable fuel cell, an advance that would boost energy efficiency and decrease the unfavorable impact of current practise on the environment.

* * *

Finally, it is worthy of mention that during his first year at Stanford, [the petitioner] designed and prepared a compound that contains an unprecedented type of chemical bond. It is remarkable that this late in the history of chemistry new kinds of chemical bonds remain to be discovered. The importance of this achievement was recognized by this novel species being featured on the cover of *Angewandte Chemie*, one of the most prestigious international scientific journals.

The petitioner also submits several letters from elected members of the National Academy of Sciences. [REDACTED] a professor at Northwestern University and an elected member of the National Academy of Sciences, submits a letter that represents the recognition that the petitioner has attracted. Professor Ibers states:

I first became aware of [the petitioner's] research as a result of a series of impressive papers on metalloporphyrin chemistry that he has recently published in the *Journal of the American Chemical Society*, *Angewandte Chemie*, *Inorganic Chemistry* and other journals.

With respect to the U.S. national interest, [the petitioner's] work at Stanford on understanding the electrocatalytic reduction of oxygen is very important. . . . [The petitioner] has investigated catalytic oxygen reduction by the use of synthetic assemblies of iron-containing porphyrins (called hemes). . . . [The petitioner's] research is extremely important for understanding the interactions between oxygen and cytochrome c oxidase. For example, his research has revealed a physiological basis for the bimetallic structure of the enzyme's catalytic site. Indeed, [the petitioner] has shown that the second metal (copper) diminishes the production of toxic by-products of oxygen reduction, and makes the catalysts resistant to poisons such as cyanide or CO. This knowledge is important for understanding this fundamental process of human physiology, and contributes to the development of methods to reduce deleterious physiological effects of incomplete oxygen reduction.

[REDACTED] a professor of chemistry at the University of California at Berkeley and an elected member of the National Academy of Sciences, offers a similar assessment of the petitioner and his work:

Although I do not know [the petitioner] personally, I am familiar with the research articles he has published in some of the most influential scientific journals, for example, the *Journal of the American Chemical Society*, *Angewandte Chemie* and *Inorganic Chemistry*.

Cytochrome c oxidase is one of the most important human enzymes, responsible for the final step in the complex biochemical process of oxygen respiration as well as the major source of energy in the body. [The petitioner's] research substantially advances our understanding of the mechanism of interactions between oxygen and the enzyme (particularly the reductive conversion to water) and the effects of toxins on the enzyme's activity.

The most fascinating (and poorly understood) attribute of cytochrome c oxidase is its ability to affect complete reduction of oxygen to water, releasing only minimal amounts of tissue-damaging, partially-reduced oxygen species. These chemicals, which are an inevitable part of aerobic biochemistry, are implicated as causative agents in several serious human disorders. [The petitioner's] research has

elucidated this mechanism of oxygen reduction by cytochrome c oxidase, offering insights into how the enzyme avoids the production of partially reduced oxygen species.

In denying the petition, the director concluded that the petitioner had not persuasively distinguished his accomplishments from others in the field. The director noted that the witnesses were directly or indirectly connected to the petitioner and that there was “no clear indication that the petitioner is widely considered to be among the best-known researchers nationally or internationally.” A national interest waiver does not require a showing that the alien be widely considered to be among the best-known researchers nationally or internationally.

The director throughout the decision made references to the regulatory criteria required to establish eligibility as an alien of extraordinary ability under 8 C.F.R. § 204.5(h). While the director also discussed the petitioner's eligibility for a waiver of the labor certification requirement under *Matter of New York State Dept. of Transportation*, it appears that her decision, in part, was mistakenly based on the distinct and more rigorous requirements to establish eligibility as an alien who is at the very top of his or her field of endeavor under section 203(b)(1)(A) of the Act, 8 U.S.C. § 1153(b)(1)(A).

The collective opinions of four Nobel Laureates and several elected members of the National Academy of Sciences show that this petitioner has garnered significant attention within the field of biochemistry. Many of his witnesses are senior scientists who have provided individualized testimonials that clearly recognize the specific significance of the petitioner's contributions. As noted by Professor ██████, the petitioner's research has not merely extended prior work incrementally, but has successfully challenged specific long held concepts.

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. In this case, however, the petitioner has established that the senior scientific community recognizes the significance of this petitioner's accomplishments rather than the importance of the general area of research. The benefit of retaining this alien's services outweighs the national interest that is inherent in the labor certification process. On the basis of the evidence submitted, the petitioner has 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 sustained that burden. Accordingly, the decision of the director denying the petition will be withdrawn and the petition will be approved.

ORDER: The appeal is sustained.