

STATEMENT OF CONSIDERATIONS

REQUEST BY DSM INNOVATION, INC. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE FOA NO. DE-PS36-06GO97034; W(A)-2008-011

The Petitioner, DSM Innovation, Inc., has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced cooperative agreement entitled "Development of a Commercial Enzymes System for Lignocellulosic Biomass Saccharification." Petitioner's partners are Abengoa Bioenergy Inc., Sandia National Laboratories, and Los Alamos National Laboratory, none of which are subject to this waiver.

The objective of the agreement is to develop a commercially viable enzyme system for lignocellulosic biomass saccharification using a fungal production base of enzymes. Petitioner's approach is to a) incorporate pretreated biomass feed-stock based fungal fermentation to optimize various cellulolytic enzyme cascade systems, b) use an advanced in-house developed fungal host expression system for expressing the cellulolytic enzymes systems to a total protein titer level enabling a reduced cost of production for successful saccharification of biomass feed-stocks, c) improve the total carbon yield to lignocellulosic saccharifying enzymes, d) improve the catalytic efficiency of lignocellulosic enzyme systems, e) develop an optimal biomass saccharification reactor design, and f) demonstrate developed lignocellulosic saccharifying enzyme system performance at a commercially viable cost structure for pretreated biomass in a pilot plant configuration.

The total anticipated cost of the agreement is \$14,202,197 with Petitioner and its partners providing 47.7% cost share, totaling \$6,776,074. Petitioner is providing \$5,830,200 of that cost share, and its partners are providing the remaining \$945,874. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the agreement.

Petitioner and its subcontractors have a strong technical competency and extensive experience in this field and area, and the resources in the necessary disciplines to achieve the project goals. Petitioner has already developed and commercialized enzyme products relevant to the scope of this contract for the last three decades. Petitioner, and its affiliated companies, is considered one of the world leaders in enzyme technology development with over 22,000 employees in more than 50 countries. Petitioner, and its affiliated companies, has over 3,000 employees in the United States operating in more than 12 states.


Petitioner has put together a strong technical and business team from four leading biomass R&D organizations participating in this project proposal. All organizations bring complementary capabilities to practice open innovation that will lead to successful enzyme product development. All participating organizations are bringing very competent and experienced personnel to make it a success. Most members of the team hold Ph.D.s and have more than 20 years of experience in enzymes and biomass research. Principal investigators from

Sandia National Laboratories and Los Alamos National Laboratory are also leaders in biomass enzyme research and have been recognized, and have and continue to be funded by DOE for their biomass enzyme research. All organizations have good depth in technical, business, and management skills that are assembled to deliver performance and carry out the proposed project successfully.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, as set forth in 35 U.S.C. 202-204. Further, Petitioner has agreed to the U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying intellectual property developed under this agreement shall be substantially manufactured in the United States, and that Petitioner will not license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Referring to item 10 of the waiver petition, Petitioner's requested waiver will not have a material impact on competition of development in the area of second generation biofuel technology. All major enzyme development companies are making significant investments in research and development concerning the generation of commercially viable yields of second generation biofuels at competitive costs. Further, hundreds of millions of dollars has been invested by the venture capital community in small development companies pursuing similar goals. Given the number of Government awards in this field, the number of large multinational corporations pursuing this technology, and the large number of small innovate companies funded by the venture capital community driving towards the same goals, Petitioner does not believe that the grant of its advanced patent waiver request will adversely affect competition of market concentration or place petitioner in a preferred or dominant position in this field. A grant of Petitioner's patent waiver rights shall serve to improve the commitment of industry to develop this long-range high risk technology.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in commercializing the results of the agreement in a manner that will make the above technology available to the public in the shortest time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.


Julia Cook Moody
Patent Attorney
Golden Field Office
Date: 10/15/08

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope determined above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the agreement, where through such modification or extension, the purpose, scope, or cost of the agreement has been substantially altered.

CONCURRENCE:



Jacques A. Beaudry-Losique, Program
Manager
Office of Biomass Program
EE-2A

Date: 12-11-08

APPROVAL:



Paul A. Gottlieb
Assistant General Counsel for Technology
Transfer and Intellectual Property

Date: 12-12-08

U.S. COMPETITIVENESS

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in any waived invention is suspended until approved in writing by DOE.