Collaborator Will—

Identify, through appropriate means, gene(s) encoding a thermostable enzyme;

Perform subcloning and over-expression of gene(e) encoding a thermostable enzyme;

Purify to homogeneity adequate quantities of thermostable enzyme(s) to complete the studies;

Conduct assays to measure enzyme activity at various temperatures and substrate concentrations;

Develop a method for improving assay sensitivity by signal amplification using a thermostable enzyme having certain selected for characteristics.

Selection Criteria

Demonstrated ability in protein engineering and molecular biology. Particular expertise in cloning, over-expression and purification of a thermal stable enzyme;

Scientific expertise and demonstrated commitment to the development of diagnostic systems;

Experience in preclinical and clinical diagnostic development;

Experience and ability to produce, package, market and distribute pharmaceutical products;

Willingness to cooperate with NIHCC in the collection, evaluation, publication and maintenance of data from pre-clinical studies and clinical trials regarding the diagnostic system.

Dated: May 15, 1997.

Thomas D. Mays,

Director, Office of Technology Development, National Cancer Institute, National Institutes of Health.

[FR Doc. 97–13831 Filed 5–23–97; 8:45 am]

BILLING CODE 4410–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Opportunity for a Cooperative Research and Development Agreement (CRADA) and Licensing Opportunity for Testosterone Bucyclate

AGENCY: National Institute of Child Health and Human Development, National Institutes of Health, Public Health Service, DHHS; and UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (WHO/HRP).

ACTION: Notice.

SUMMARY: The National Institutes of Health and the World Health Organization are seeking (a) partner(s) for the further development, evaluation and commercialization of testosterone bucyclate and pharmaceutical compositions thereof. The invention claimed in the issued U.S. patent referenced below is available for either exclusive or non-exclusive licensing. Licensing by NIH is subject to 35 U.S.C. 207 and 37 CFR part 404.

Long-Acting Androgenic Compounds and Pharmaceutical Compositions Thereof

Inventors: Sydney Archer, Gabriel Bialy, Richard P. Blye, Pierre Crabbe, Egon R. Diczfalusy, Carl Djerassi, Josef Fried and Hyun K. Kim.

Assignees: National Institutes of Health and the World Health Organization.

Issued: August 14, 1990.

Patent Number: 4,948,790.

To expedite the research, development and commercialization of testosterone bucyclate, the National Institutes of Health and the World Health Organization are seeking one or more CRADA and/or license agreements with pharmaceutical or biotechnology companies in accordance with the regulations governing the transfer of Government-developed agents and WHO's public sector objectives, as outlined below. Any proposal to use or develop these drugs will be considered.

SUPPLEMENTARY INFORMATION:

Androgens are principally employed in therapeutic medicine for replacement or supplementation in androgen deficiency states but also find use in hypopituitarism, menstrual disorders, anemia, promotion of anabolism, suppression of lactation and as a palliative measure in recurrent and metastatic carcinoma of the breast. NIH's and WHO's interest is to develop testosterone bucyclate for use in a hormonal method of male contraception and for androgen replacement in other methods of male contraception which usually compromise the endocrine as well as the gametogenic function of the testis. Long-term androgen therapy is complicated by the side effectes and/or poor bioavailability of oral preparations and the need for frequent injections of parenteral products. Two of the most commonly used injectable androgens, testosterone enanthate and testosterone cypionate, must be administered about every two weeks. There is thus a crucial need for longer-acting injectable androgens.

Testosterone bucyclate emanated, in 1980, from a joint NIH-WHO-sponsored steroid synthesis program in which the preparation of selected steroid esters was contracted by WHO and the resulting compounds screened by the Contraceptive Development Branch (CDB) of the National Institute for Child Health and Human Development at its Biological Testing Facility. Chemically, testosterone bucyclate is Testosterone 17β-(*trans*-4*n*-butyl) cyclohexyl carboxylate. This ester of the natural hormone, testosterone, exhibits prolonged activity when administered intramuscularly as an aqueous crystalline suspension in all species studied, including man. The drug was evaluated, including pharmacokinetics and metabolic studies in both rodents and primates, by CDB. WHO supported studies in primates as well as the first clinical studies in hypogonadal and normal men. The patent is jointly held by NIH and WHO. NIH and WHO intend to continue joint development of testosterone bucyclate.

Although each patentee may proceed with granting a non-exclusive license independently, joint licensing is envisaged. Licensing will include use of testosterone bucyclate as a hormonal method of male contraception, use for androgen replacement in other methods of male contraception, which usually compromise the endocrine as well as the gametogenic function of the testis and use as a therapeutic androgen for patients with androgen deficiency syndromes. A ''Notice of Claimed Investigational Exemption For A New Drug'' (IND) was filed with the FDA in October, 1996.

The National Institute of Child Health and Human Development and the World Health Organization seeks partners for the further development and commercialization of testosterone bucyclate.

The role of the National Institute of Child Health and Human Development and the World Health Organization is expected to be as follows:

1. Provide the commercial partner with all biological data on testosterone bucyclate covered by the agreement.

2. Provide samples of the drug and, upon successful completion of ongoing formulation studies, clinical dosage forms.

3. Provide, upon successful completion of ongoing studies, chemical data on testosterone bucyclate, including routes of synthesis, analytical methods employed, purity, stability and formulation.

4. Provide reports of all safety studies of the drug.

5. Continue studies on the pharmacokinetics and biological activity of testosterone bucyclate and formulations thereof.

6. Conduct appropriate studies to optimize formulations of testosterone bucyclate.

7. Participate in meetings with the Food and Drug Administration for establishment of the protocols for Phase I, II and III clinical investigations and provide liaison with the FDA.

The role of the commercial partner is expected to be as follows:

1. Obtain a commercialization license from the NIH and the WHO.

2. Assume responsibility for regulatory affairs including amending the IND as necessary.

3. Assume responsibility for preparation and formulation of the drug for all pre-Phase III safety studies and clinical trials.

4. Undertake such additional safety studies as may be required for Phase III clinical trials and for NDA submission.

5. Undertake an orderly sequence of clinical investigations of testosterone bucyclate as a hormonal methods of male contraception and for androgen replacement in other methods of male contraception.

6. Assume responsibility for preparation and filing of the NDA.

7. Assume responsibility for commercial manufacture and distribution of the final products.

8. Ensure availability of the final products to the public sector of developing countries in sufficient quantities, at a preferential price, in accordance with WHO's public sector objectives.

Selection criteria for choosing commercial partners will furthermore include, but will not be limited to the following:

1. The proposal must contain a clear statement of capabilities and experience with respect to the tasks to be undertaken. This would include experience in drug development, regulatory affairs and marketing.

2. The proposal must contain a clear and concise outline of the work to be undertaken, a schedule of significant events, an outline of objectives to be accomplished with individual and overall times frames, and details of experimental procedures and techniques to be employed.

3. The proposal must contain the level of financial support which will be supplied for the development of testosterone bucyclate.

4. Agreement to be bound by DHHS and WHO rules and regulations regarding patent rights, the ethical treatment of animals, the involvement of human subjects in clinical investigations and the conduct of randomized clinical trials.

5. Agreement with provisions for equitable distribution of patent rights to any inventions developed under the CRADA and license agreements.

DATES: In view of the high priority for developing and commercializing testosterone bucyclate, all proposals must be received no later than June 26, 1997 for priority consideration.

ADDRESSES: CRADA proposals and questions should be addressed to Dr. Diana Blithe, Contraceptive Development Branch, Center for Population Research, National Institutes of Child Health and Human Development, Room 8B 13, 6100 Executive Boulevard, Rockville, Maryland 20892 (Telephone: 301/496–1661); with a copy to Director, UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization, 20, Avenue Appia, CH–1211 Geneva 27, Switzerland. Responders interested in submitting a CRADA proposal should simultaneously submit a license application concerning the above-mentioned patent rights to NIH and WHO for commercialization of products arising from the CRADA.

Requests for copies of the U.S. patent, license application forms, or questions about the licensing opportunity should be addressed to Ms. Carol Lavrich, Technology Licensing Specialist, Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804 (Telephone: 301/496–7735 ext. 287), with a copy to Office of the Legal Counsel, World Health Organization, 20 Avenue Appia, CH–1211 Geneva 27, Switzerland (Telephone: 00–41–22 7912685). Completed license applications should be submitted to the same addresses.

Pertinent information not yet publicly described can be obtained under a Confidential Disclosure Agreement with the appropriate agency.

Dated: May 16, 1997.

Barbara M. McGarey,

Deputy Director, Office of Technology Transfer.

[FR Doc. 97–13832 Filed 5–23–97; 8:45 am]

BILLING CODE 4140–01–M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Prospective Grant of Exclusive License: Vaccine for Malaria

AGENCY: National Institutes of Health, Public Health Service, DHHS.

ACTION: Notice.

SUMMARY: This is notice in accordance with 15 U.S.C. 209(c)(1) and 37 CFR 404.7(a)(1)(i) that the National Institutes of Health (NIH), Department of Health and Human Services, is contemplating the grant of a limited field of use exclusive world-wide license to practice the invention embodied in U.S. Patent Application Serial Nos. 08/119,677 (field 09/10/93), 08/487,826 (field 06/07/95), and 08/568,459 (filed 12/07/95), entitled ''Binding Domains from Plasmodium Vivax and Plasmodium Falciparum Erythrocyte Binding Proteins,'' and related foreign patent applications, to EntreMed, Inc. of Rockville, MD. The patent rights in these inventions have been assigned to the United States of America.

The prospective exclusive license will be royalty-bearing and will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. It is anticipated that this license may be limited to vaccine for Malaria.

This prospective exclusive license may be granted unless within 60 days from the date of this published notice, NIH receives written evidence and argument that establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

SUPPLEMENTARY INFORMATION: The patent applications identify function domains of Plasmodium proteins which can be used for the prevention or treatment of malaria. The parasite invades erythrocytes by attaching to surface receptors. The erthyrocyte binding domains of the sialic acid binding protectin (SABP) of P. falciparum and the Duffy antigen binding protein (DABP) can be used in vaccines to induce immune responses which block erythrocyte binding and invasion by P. falciparum and P. vivax meroszoites. USSN 089/487,826 further includes genes and nucleotide sequences and predicted polypeptide sequences of the P. falciparum DBL (Duffy-binding like) gene family which codes for antigenically variant binding domains.

ADDRESSES: Requests for a copy of the patent applications, inquiries, comments and other materials relating to the contemplated license should be directed to: Gloria H. Richmond, Patent Advisor, Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852–3804; Telephone: 301/496–7057; Facsimile: 301/402–0200; E-mail: Gloria Richmond@NIH.GOV. A signed Confidential Disclosure Agreement will be required to receive a copy of the patent applications.

Applications for a non-exclusive or exclusive license filed in response to