

considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Unless otherwise noted, comments regarding each of these applications must be received not later than February 17, 1995.

A. Federal Reserve Bank of St. Louis (Randall C. Sumner, Vice President) 411 Locust Street, St. Louis, Missouri 63166:

1. *L.B.S. McMullan Limited Partnership*, Shelbyville, Kentucky; to become a bank holding company by acquiring 37.53 percent of the voting shares of Citizens Union Bancorp of Shelbyville, Inc., Shelbyville, Kentucky, and thereby indirectly acquire Citizens Union Bank of Shelbyville, Shelbyville, Kentucky, and First Farmers Bank and Trust Company, Owenton, Kentucky.

B. Federal Reserve Bank of Kansas City (John E. Yorke, Senior Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. *Vectra Banking Corporation*, Denver, Colorado; to merge with First Denver Corporation, Denver, Colorado, and thereby indirectly acquire The First National Bank of Denver, Denver, Colorado.

C. Federal Reserve Bank of San Francisco (Kenneth R. Binning, Director, Bank Holding Company) 101 Market Street, San Francisco, California 94105:

1. *Westamerica Bancorporation*, San Rafael, California; to acquire up to 100 percent of the voting shares of CapitolBank Sacramento, Sacramento, California.

Board of Governors of the Federal Reserve System, January 18, 1995.

Jennifer J. Johnson,

Deputy Secretary of the Board.

[FR Doc. 95-1701 Filed 1-23-95; 8:45 am]

BILLING CODE 6210-01-F

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Cancer Institute: Opportunity for a Cooperative Research and Development Agreement (CRADA) for the Scientific and Commercial Development of Novel Heparin-Binding Peptides

AGENCY: National Institutes of Health, PHS, DHHS.

ACTION: Notice.

SUMMARY: Pursuant to the Federal Technology Transfer Act of 1986 (FTTA, 15 U.S.C. 3710; Executive Order 12591 of April 10, 1987), The National Cancer Institute (NCI) of the National Institutes of Health (NIH) of the Public Health Service (PHS) of the Department of Health and Human Services (DHHS) seeks a major pharmaceutical company which can effectively pursue the development of novel heparin-binding peptides for which a United States Patent has issued (5,357,041) and additional United States and foreign patent applications have been filed. NCI will enter into CRADA negotiations with the selected sponsor. It is the intention of NCI that the selected sponsor will be awarded a CRADA for the co-development of these peptides as inhibitors of angiogenesis and tumor growth. The CRADA would have an expected duration of three to five years.

ADDRESSES: Questions about this opportunity may be addressed to David R. Preston, Ph.D., Office of Technology Development, National Cancer Institute, Building 31, Room 4A51, National Institutes of Health, Bethesda, MD 20892. Phone (301) 496-0477, facsimile number (301) 402-2117. Further information may be obtained through a confidentiality agreement between the interested company and the NCI. This information will include forms necessary for examining, and applying for license to, existing relevant patents and patent applications. Under the Collaborative Research and Development Agreement (CRADA), the industrial collaborator may obtain an option to negotiate a license to government patent rights to inventions arising under the CRADA.

DATES: Interested parties should notify this office in writing no later than sixty (60) days from the date of this announcement in the **Federal Register**. Respondents will then be provided an additional, sixty (60) days for the filing of formal proposals.

SUPPLEMENTARY INFORMATION: "Cooperative Research and

Development Agreements" or "CRADA" means the anticipated joint agreement to be entered into by NCI pursuant to the Federal Technology Transfer Act of 1986 and Executive Order 12591 of October 10, 1987 to collaborate on the specific research project described below. The Division of Cancer Biology, Diagnosis and Centers (DCBDC) of NCI is seeking to develop a collaborative relationship with a major pharmaceutical company with the following aims:

- (1) Optimizing peptide and peptidomimetic activity *in vitro* and *in vivo*;
- (2) preclinical development of the synthetic peptides and mimetics; and
- (3) clinical studies as warranted.

A family of related peptides have been synthesized based on the Type I repeats of human thrombospondin that bind to heparin or related sulfated glycoconjugates with high affinity. The peptides differ from previously described heparin-binding peptides in that they do not require basic amino acid residues for binding to heparin. The peptides are potent inhibitors of interactions of heparin, heparan sulfate proteoglycans, or related sulfated glycoconjugates with adhesion molecules, growth factors, cells and some heparin-dependent enzymes. The lack of charge should be advantageous in formulating pharmaceutical agents based on these peptides for efficient delivery to their sites of action. Stable analogs of the peptides have been synthesized with increased potency and specificity. The high potency of these peptidomimetics should allow much smaller amounts of the compound to be administered and thus may reduce risks of toxicity and generation of immune responses against the compounds.

The peptides and mimetics have several defined activities: (a) Inhibition of binding of several adhesive proteins and growth factors to heparin and heparan sulfate proteoglycans; (b) inhibition of adhesive protein binding to tumor and endothelial cells; (c) promotion of tumor and endothelial cell adhesion on peptide coated substrates; and (d) modulation of tumor and endothelial cell growth and chemotaxis in response to basic fibroblast growth factor and some other growth factors *in vitro* and tumor growth *in vivo*.

Preclinical studies are in progress to characterize the activities of these peptides in modulating tumor growth, metastasis, and invasion, and in inhibiting angiogenesis. Studies will also investigate potential use of the peptides to treat other diseases associated with angiogenic responses and as inhibitors of pathogen

interactions with sulfated glycoconjugates on host cells.

The role of the Division of Cancer Biology, Diagnosis and Centers (DCBDC) of the National Cancer Institute (NCI) under the CRADA will include the following:

1. The government will continue preclinical development of the peptides and mimetics as inhibitors of tumor growth and metastasis *in vitro* and *in vivo*. Data from these studies will be provided to the pharmaceutical company and evaluated jointly.

2. The government will provide available data and expertise in structure-function relationships and conformational analysis of the active peptides and peptidomimetics. These data will be evaluated jointly in order to assess an efficient research path.

3. As appropriate, the government will initiate collaborative clinical trials under its extramural clinical trials network, thus ensuring the clinical evaluation of the compounds.

4. Relevant Patent rights are available for licensing through the Office of Technology Transfer, NIH. For further information contact: Ms. Carol Lavrich, Technology Licensing Specialist., Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Rockville, Maryland 20852-3804. (301) 496-7735 (ext. 287), Fax (301) 402-0220. There is no deadline by which license applications must be received. See 35 U.S.C. 207 and 37 C.F.R. Part 404.

The role of the successful pharmaceutical company under the CRADA will include the following:

1. Prepare and characterize GMP quality nonmetabolizable, analogs (as determined by both parties) of the active peptides and provide these to the DCBDC, NCI for characterization as angiogenesis and metastasis inhibitors.

2. Provide funds for preclinical development of the peptides *in vitro* and for screening activities in appropriate animal models.

3. Collaborate in the planning and support for clinical development leading to FDA approval and marketing.

Criteria for choosing the pharmaceutical company include the following:

1. Experience in preclinical and clinical drug development.

2. Experience and ability to produce, package, market, and distribute pharmaceutical products in the United States.

3. A willingness to cooperate with the Public Health Service in the collection, evaluation, publication, and maintenance of data from clinical trials of investigational agents.

4. A willingness to cost share in the development of heparin binding peptides as outlined above. This includes acquisition of material and synthesis of heparin binding peptides and/or peptidomimetics in adequate amounts as needed for future clinical trials and marketing.

5. An agreement to be bound by the DHHS rules involving human and animal subjects.

6. The aggressiveness of the development plan, including the appropriateness of milestones and deadlines for preclinical and clinical development.

7. Provisions for equitable distribution of patent rights to any inventions arising under the CRADA. Generally the rights of ownership are retained by the organization which is the employer of the inventor, with (1) an irrevocable, non-exclusive, royalty-free license to the Government (when a company employee is the sole inventor) or (2) an option to negotiate an exclusive or non-exclusive license to the company on terms that are appropriate (when a Government employee is the sole inventor).

Dated: December 22, 1994.

Karen Maurey,

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

[FR Doc. 95-1665 Filed 1-23-95; 8:45 am]

BILLING CODE 4140-01-P

Public Health Service

National Toxicology Program; Announcement of Intent To Conduct Toxicological Studies of 16 Chemicals

Request for Comments: As part of an effort to inform the public, the National Toxicology Program (NTP) routinely announces in the **Federal Register** the lists of chemicals for which plans to develop protocols for Toxicological studies are underway. This announcement will allow interested parties to comment and provide information on chemicals under consideration. Chemicals and types of studies under consideration are listed below.

Chemical 1. 2-Cyclohexene-1-one (CAS No. 930-68-7) 14-day, 13-week and 2-year toxicology and carcinogenesis inhalation studies.

2-Cyclohexene-1-one (2-CHX-1) belongs to a class of chemicals termed alpha, beta-unsaturated ketones. This class of chemicals was nominated by National Cancer Institute for carcinogenicity and mechanistic toxicity studies with high priority due to

demonstrated human industrial and consumer exposure and inadequate health effects testing. 2-CHX-1 is being studied as an example of a cyclic member of the class of aliphatic alpha, beta-unsaturated ketones. It is used as an industrial chemical intermediate in the chemical, pharmaceutical, and agricultural chemical industries. It is used in the synthesis of resorcinol, phenol, 11-deoxy-prostaglandins, immunostimulants, anti-inflammatory agents, fungicides and herbicides. Consumer exposure includes the use of 2-CHX-1 in low-odor permanent wave hair preparations, antifungal agents and mold inhibitors for bread storage containers, smoke flavor preparations, and detergents. 2-CHX-1 is present in tobacco smoke and is present in side-stream smoke from tobacco combustion. Natural occurrence of 2-CHX-1 includes wild rice fermentation products, a component of beech wood and roasted coffee. 2-CHX-1 may also be present in foods and consumer products as an impurity in the flavor enhancer tetrahydronaphthalenone. The major effect reported on the toxic effects of 2-CHX-1 in animals is the depletion of glutathione in various tissues of rodents. 2-CHX-1 is a weak, direct acting mutagen in the Salmonella assay and in a rat hepatocyte/DNA repair test. 2-CHX-1 was able to react covalently with deoxyguanosine.

Chemical 2. Methyl Vinyl Ketone (CAS No. 78-74-4) 14-day, 13-week and 2-year toxicology and carcinogenesis inhalation studies.

Methyl Vinyl Ketone (MVK), a member of the class of chemicals termed alpha, beta-unsaturated ketones, was nominated by the National Cancer Institute for carcinogenicity and mechanistic toxicity studies with high priority due to demonstrated human industrial and consumer exposure and inadequate health effects testing. MVK was selected as the prototype non cyclic member of the major class of straight-chain aliphatic alpha, beta-unsaturated ketones. MVK is used commercially in the production of pesticides, perfumes, plastics and resins. It is a pharmaceutical intermediate in the synthesis of steroids, vitamin A, and anticoagulants. Consumer exposure to MVK is widespread due to its presence in cigarette smoke, its production by gamma-irradiation from sugars in tropical fruit, and as a ubiquitous air pollutant due to its presence in vehicular exhaust. MVK is an alkylating agent and may interact with DNA to form covalent adducts. MVK was reported by the NTP to be mutagenic in the Salmonella assay.