

Pre-clinical models of arthritis

COMMONLY USED and specific inflammatory and degenerative pre-clinical models of arthritis are available to industry through CAN. Such models include:

- inflammatory arthritis (antigen-induced, collagen induced, carageenan-induced)
- osteoarthritis: anterior cruciate ligament transection
- damage/repair of ligaments and cartilage
- study of human tissue pathology in pre-clinical *in vivo* environment

These models are available primarily in non-GLP conditions. Select models will be available in GLP conditions depending on need.

For more information about these animal models and other pre-clinical services available through CAN, contact Jas Sandhu, manager, pre-clinical services, at 416-586-8537 or sandhu@mshri.on.ca

CAN also offers services in clinical trials and disease management. Visit our Web site at www.arthritis.ca/can ■

Need to reach leading Canadian arthritis researchers and clinicians?

An excellent vehicle for industry, academic and government representatives to reach arthritis clinicians and scientists is the Canadian Arthritis Network's internal newsletter, CANNECTIONS.

THIS MONTHLY ELECTRONIC bulletin is received by more than 130 of Canada's leading social scientists, clinicians, basic scientists, health economists and statisticians in the field of arthritis.

To communicate an upcoming event, such as a symposium, or to promote a grant, an award, potential collaborations

or employment opportunities, contact Christina Marshall at cmarshall@mtsinai.on.ca

This opportunity is available free of charge to non-profit researchers and organizations, and for a nominal fee to commercial parties ■



CANADIAN ARTHRITIS NETWORK | LE RÉSEAU CANADIEN DE L'ARTHRITE

We're moving

In order to meet our future needs, CAN is moving its administrative office.

As of the beginning of June, our new address will be 250 Dundas Street West, Suite 402, Toronto, Ontario, Canada, M5T 2Z5. The facilities have been generously provided by our host institution Mount Sinai Hospital. For further information, visit our Web site at www.arthritis.ca/can ■

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JOINT VENTURES

The Canadian Arthritis Network's Industry Newsletter

Featured technology: intracellular peptides for arthritis therapy

A CAN research team is studying a novel method to block part of the inflammation process, an important step in the treatment of autoimmune disease.

THE INVESTIGATORS are looking at the intracellular signalling mechanism of interference with interleukin-8 activity. "By altering intracellular signalling networks we created a method that is highly selective and potentially has a low toxicity," says principal investigator Dr. Paul Naccache, a professor in the rheumatology and immunology research centre at Université Laval.

The process involves creating and observing peptides (small chains of amino acids) that block the intracellular signalling that occurs when IL-8 meets its receptor. This approach for the control of leukocyte migration during inflammatory diseases is being examined at Université Laval in Ste-Foy, Quebec.

"This project received a high score by the Scientific and Medical Advisory Board for its potential for intellectual property and application," explains Dr. Tony Cruz, CAN's program director and CEO. "This type of technology should be of interest to industry."

The project has well-defined commercial potential. These peptides, or small-molecule



CAN member Dr. Paul Naccache, Université Laval

mimics of them, are good candidates to be used as therapeutic agents to treat inflammatory diseases. Industrial partners with research programs in inflammation, arthritis, cell signalling and peptide delivery will likely have a particular interest in partnering with Dr. Naccache to develop this technology.

The recruitment of massive amounts of white blood cells, in particular neutrophils, is a major characteristic of inflammation. During an auto-immune response such as rheumatoid arthritis,

neutrophils are stimulated to secrete enzymes and other chemicals that damage or kill healthy tissue. The regulation of these cells is tightly controlled by the production of various chemoattractants, notably chemokines such as IL-8.

Because the peptides act intracellularly, the cells must be permeable to allow the peptide inside. For an *in vitro* system, this simply involved the use of a detergent, and results have been very encouraging. Getting the peptides to

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Network partnerships

Partnerships are an important part of our Network. These relationships create research collaborations and unique services, and also facilitate the co-development of novel technologies and leverage funding for R&D. Some of our partnerships to date include:

Pharmaceutical companies

Amgen Inc.
Aventis SA
Bayer ABS Ltd.
Farnam Companies, Inc.
F. Hoffman – La Roche Ltd.
Genzyme Corp.
Merck & Co.
Pfizer Inc.
Pharmacia Canada Inc.
The Procter & Gamble Co.
Wyeth

Biotechnology companies

Anacoti Ltd.
AnorMED Inc.
BioSyntech Inc.
Chondrogene Ltd.
Colbar
Ellipsis Biotherapeutics Corp.
Enhanced Vision Systems Corp.
Entigen Inc.
Fralex Therapeutics Inc.
GEMMA BioTechnology
HDM Diagnostics Inc.
ImmGenics Pharmaceuticals Inc.
Immundiagnostik AG
Medexus Inc.
Oxford PharmaGenesis Ltd.
Supratech Pharma Inc.
Theralase Inc.
Transitions Therapeutics Inc.
Twinstrand Therapeutics Inc.
Xenon Genetics Inc.

Contract research organizations

ClinTrials BioResearch Inc.
Strategic Health Innovations

Government and non-profit organizations

Health Canada
Institute of Musculoskeletal Health and Arthritis
The Arthritis Society

Investment companies

Milestone Medica Corporation

To explore partnership opportunities, contact David Phipps, executive director of business development, at 416-586-8366 or dphipp@mtsina.on.ca

CAN research grant proposals under the international microscope

CAN's research proposals are reviewed by the Scientific and Medical Advisory Board, a group of international experts in arthritis research and development.

THE 15-MEMBER TEAM ensures the Network obtains external feedback and direction from the world's leading experts in arthritis.

This year, under the leadership of Dr. Gideon Rodan, chair of the Scientific and Medical Advisory Board, funding was recommended for 41 applications.

CAN grant applications are assessed for scientific excellence and value, such

as the potential for intellectual property, potential to decrease the economic burden of arthritis, as well as existing or potential partnerships. For more information on CAN research, contact Tineke Meijers, executive director of research and development, at 416-586-4685 or tmeijers@mtsina.on.ca ■



CAN's Scientific and Medical Advisory Board

Back Row (left to right): Dr. Michael Weinblatt, Dr. Jeffery Katz, Dr. Steven Goldring, Dr. Peter Gregersen, Dr. Sharon Wahl, Dr. Donald Bartel

Front Row (left to right): Dr. Paul Dieppe, Dr. Gordon Mills, Dr. Gideon Rodan, Dr. Paul Wordsworth

Dr. Joseph Buckwalter, Dr. Mary Charlson, Dr. Klaus Kuettner, Dr. Hari Reddi and Dr. Samuel Stupp are also members of the group and participated in the review process.

Intracellular peptides

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create the same action in a living system, however, took some ingenuity.

Naccache's team came up with two possible solutions. The first method involved attaching hydrocarbons to the amino acids of the peptides, which made the new molecule hydrophobic, and able to penetrate the cells. The other method involved fusing the peptides to a protein already soluble to cells.

Dr. Naccache is now looking at the *in vivo* efficacy of hybrid peptides in the protection of healthy tissue from attack by neutrophils, through the inhibition of cytokine production and neutrophil recruitment.

If you are interested in this opportunity or would like to learn about other CAN research projects, contact Tineke Meijers, executive director of research and development, at 416-586-4685 or tmeijers@mtsina.on.ca ■

CAN's Annual Conference 2001

This two-day forum will be held from September 13 to 15 in Calgary, Alberta, Canada.



Telus Convention Centre, Calgary, Alberta, Canada

International speakers include:

Dr. Stefan Lohmander
Department of Orthopaedics
University Hospital
Lund, Sweden

Dr. Steven Goldring
Beth Israel Deaconess Medical Centre
Boston, United States

Dr. Halsted Holman
Division of Immunology & Rheumatology
Stanford University, United States

Dr. Charles Peterfy
Synarc, San Francisco, United States

CAN members who will be at the podium include:

Dr. Sheila Laverty
Dr. Andras Nagy
Dr. John DiBattista
Dr. Paul Naccache
Dr. Michael Underhill
Dr. Helen Burt
Dr. Jacek Kopec
Dr. Jaro Sodek
Dr. Frank Jirik

Some of the topics to be addressed are:

- promise of FUGU genomics
- molecular basis of chondrogenesis
- role of osteopontin in arthritis
- novel anticytokine pharmacotherapies
- the biological imperative for creating a different practice of medicine
- biomarkers for osteoarthritis

The conference will be held at the Telus Convention Centre in Calgary, Canada, and will be of interest to those in industry, academia and government.

For information about sponsorship and exhibiting, contact David Phipps at 416-586-8366. You can register on line or by calling Leigh Gibson at 416-586-8416. A detailed program will be forwarded to you in May or you can visit our Web site at www.arthritis.ca/can ■

2001 conferences

* **Seventh Annual Canadian Connective Tissue Conference**
May 25-26
Toronto, Ontario
dentistry.uwo.ca/cctc

European League Against Rheumatism
Annual European Congress of Rheumatology
June 13-16
Prague, Czech Republic
www.eular.org

* **Many Faces of Osteoarthritis**
An international conference in honour of Dr. Klaus E. Kuettner
June 23-27
Lake Tahoe, California, United States
ctr.ucdmc.ucdavis.edu/cartilage2001.html

* **BIO 2001**
International Biotechnology Convention and Exhibition
June 24-27
San Diego, California, United States
www.bio.org/events/2001/event2001home.html

International League of Associations for Rheumatology ILAR 2001
August 26-30
Edmonton, Alberta, Canada
www.ilar.org

Canadian Arthritis Network
Annual Conference 2001
September 13-15
Calgary, Alberta, Canada
www.arthritis.ca/can

* **International Association of Inflammation Societies**
Fifth World Congress of Inflammation
September 22-26
Edinburgh, Scotland
www.inflammation-iais.org

Osteoarthritis Research Society International
2001 OARSI World Congress on Osteoarthritis
September 30-October 3
Washington, DC, United States
www.oarsi.org

* **Biocontact Quebec**
October 10-12
Quebec City, Quebec, Canada
www.biocontact.qc.ca/index-en.htm

* **American College of Rheumatology**
2001 Annual Meeting
November 11-15
San Francisco, California, United States
www.rheumatology.org

* CAN is attending these conferences. To organize a meeting in person, contact us at 416-586-4770 or can@arthritis.ca