



**Canadian Arthritis Network
International Partnership Initiative**

**International Research & Training Program
LABORATORY/CLINIC PROFILE**

Contact information of the principal investigator

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Please indicate if you are member or affiliate of one or more of the following International Partnership Initiative organizations:

- AO Foundation – Biotechnology Advisory Board, Switzerland
- Arthritis Foundation, USA
- Arthritis Research Campaign, UK
- Canadian Arthritis Network, Canada
- Japan Society for the Promotion of Science, Japan
- Nuffield Foundation Oliver Bird Rheumatism Program, UK

International Research & Training Program Opportunity

Please indicate which of the following international opportunities would be available at your laboratory/clinic.

- Training Elective Rotation
-
- Research Mini-sabbatical
-
- Industry Training Rotation



The International Research & Training Program will be available for trainee elective rotations and investigator mini-sabbaticals that commence on or before March 31, 2009. If you have any preferences regarding the dates when you can host an international trainee or investigator, please indicate this below.

Visit Length (please indicate start and end dates if known):	
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Please provide ten key words and a brief description of the research currently being conducted in your laboratory/clinic, including descriptions of any specialized equipment, methods or technologies employed at your facility.

10 key words

<ol style="list-style-type: none">1. Rheumatoid arthritis biomarkers2. Rheumatoid factor3. ELISA4. Animal models5. Innate immunity6. Antibody isotypes7. Toll-like receptors.8.9.10.

Brief description (up to ½ page)

<p>Our interests are in Rheumatoid Factor and what it tells us about Rheumatoid Arthritis. In addition we are investigating the link between RF and the immune response to different gram-negative enteric bacteria. We are currently investigating several RA cohorts (early arthritis) as well as high risk individuals for RF, anti-bacterial antibodies of different isotypes to determine their role(s) if any. We are also determining the role of the innate immune response in arthritis pathogenesis with the focus on toll-like receptors (TLR) in an animal model.</p>

Key publications (maximum 5 publications)

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1. Newkirk MM, Goldbach-Mansky R, Senior, B, Klippel J, Schumacher Jr HR and HS. El-Gabalawy. Elevated levels of IgM and IgA antibodies to *Proteus mirabilis* and IgM antibodies to



Escherichia coli are associated with early rheumatoid factor (RF) positive rheumatoid arthritis. *Rheumatology (Oxford)*. 2005 44(11):1433-41

2. Nowak U, and MM Newkirk. Rheumatoid factors: Good or bad for you? *Int. Arch. Allergy Immunol.* 2005;138:180-188
3. Nowak U, Gill K, Skamene E and MM Newkirk. Rheumatoid Factor Induction in Murine Models of Liver Injury. *Clin Exp Immunol* 2006;147:324-329.
4. Newkirk MM, Nowak U, Skamene E, Iera D, and J Desbarats. Agonistic antibodies to Fas induce a breach in the endothelial lining of the liver and a breakdown in B cell tolerance. *Clin Exp Immunol* 2006; 147:346-351.

