Thank you for taking a moment to respond to the survey sponsored by the American College of Rheumatology. The college recognizes your time is valuable and appreciates your participation in this project.

Benefits for participation: All rheumatologists, early in their careers, are asked to complete this survey. The aggregated results will be sent to you via email. The results will be published in a peer-reviewed journal to provide reference information for you to assess your career relative to that of peers in rheumatology. You may also find the results useful in advising medical students, residents, and fellows about pursuing a career in rheumatology.

The results will also assist the American College of Rheumatology identify gaps in training rheumatologists, spot investigative disparities in clinical rheumatology, and advocate new approaches to support innovation and discovery in rheumatology.

Informed Consent: Permission to distribute this survey to members of the American College of Rheumatology has been granted by the Board of Directors of the American College of Rheumatology, 1800 Century Place, Suite 250, Atlanta, GA 30345, (www.rheumatology.org ); and by the Office for the Protection of Research Subjects, 203 Administrative Office Building, University of Illinois at Chicago, Chicago, IL 60612. www.research.uic.edu.

Survey director: Questions or concerns about this survey should be addressed to: Claude Desjardins, Director of Clinical Scholars Project, University of Illinois Medical Center, Chicago, IL 60612-4325. Tel: 312-355-0916, clauded@uic.edu.

Confidentiality: All answers to questions in this survey are confidential. No information will be attributed to you, none of your responses will be disclosed to your employer and/or institution, and none of the research conducted or published will divulge the responses made by an individual physician. All published data will appear as arithmetic means with a minimum of five data points per mean.

Privacy: Your privacy will be maintained in all published and written information related to this survey. Neither your name nor e-mail address will be revealed, for any reason, as a result of taking part in this survey.

Security: Your responses to this survey will be encrypted and directed to a secure socket layer, a protocol used by on-line merchants to secure connections from desktop computers across the internet. Respondent data will reside, behind a firewall, in a coded format at the Survey Research Institute Cornell University, Ithaca, NY (http://www.cornellsurveyresearch.com).

Rights of Participants: Your participation in this survey is entirely voluntary. You may stop the survey at any time and return where you left off. You are free to leave any question unanswered.

Eligibility: The survey is limited to members of the American College of Rheumatology, early in their careers.
1. Do you currently hold a license to practice medicine in the US and/or Canada? (Circle one)

(1) Yes  
(2) No [End of survey; please return survey in the envelope provided]

2. Please list the primary state/province where you practice medicine.  
_______________________

I. Workplace Overview

The first set of questions is designed to obtain information about where rheumatologists are employed. Your responses will be used to develop a national profile of employment options for rheumatologists.

1. Select your primary place of employment (Circle one)

(1) Private Practice [Skip to question 7]  
(2) Federal Government, Military or Veterans Affairs [Skip to question 7]  
(3) Medical School or Teaching Hospital [Go to question 2]  
(4) Pharmaceutical or Biotech Industry [Skip to question 7]  
(5) Non-clinical: Practice Management, Consultant, or Entrepreneurial [Skip to question 7]  
(6) Other (please specify_______________) [Skip to question 7]

2. If you hold/held a faculty position please estimate the total amount of money you received from your department/institution to start-up your clinical research program? Estimate total dollars (nearest $ 1,000) that you received over the first three years of your appointment for each category shown below:

$ for salary _________

$ for personnel and equipment _________

$ for access to institutional core facilities needed for your research (e.g., statistical service, MRI, etc) _________

3. Is this your first position/appointment since becoming a doctor? (Circle one)

(1) Yes  
(2) No [Skip to question 5]
4. Prior to taking your current position, how many years elapsed since you completed your training? *(Circle one)*

(1) 1 year or less  
(2) 2 years  
(3) 3 years  
(4) 4 years  
(5) 5 years  
(6) 6 years or more

5. Does your employer/institution grant tenure? *(Circle one)*

(1) Yes  
(2) No [Jump to question 7]  
(3) Not applicable (self-employed or industry) [Jump to question 7]

6. Are you eligible for tenure in your current position/appointment? *(Circle one)*

(1) Yes  
(2) No

7. Please identify the salary range that best describes the total compensation your employer paid you last year (2007) before taxes. *(Circle one)*

(1) $75,000 – $99,000  
(2) $100,000 – $124,999  
(3) $125,000 – $149,999  
(4) $150,000 – $174,999  
(5) $175,000 – $199,999  
(6) $200,000 – $224,999  
(7) $225,000 – $249,999  
(8) $250,000 – $274,999  
(9) $275,000 – $299,999  
(10) $300,000 and above

8. Do you earn additional income from consulting, moonlighting or receive money from a partner or a family member to repay loans needed to attend college and/or medical school? *(Circle one)*

(1) Yes  
(2) No
II. Research Interest and Opportunities

The second set of questions examines the opportunity you had to pursue research. Your responses will be used to develop a national profile of research experiences that typify those of rheumatologists.

1. As a first year medical student was research among the possible options you considered for a productive and rewarding career in medicine? *(Circle one)*

   (1) Yes
   (2) No

2. As a first year resident was research among the possible options you considered for a productive and rewarding career in rheumatology? *(Circle one)*

   (1) Yes
   (2) No

3. When you entered a fellowship in rheumatology was basic/clinical research a realistic option for a productive and rewarding career? *(Circle one)*

   (1) Yes
   (2) No

4. As a resident or fellow were you coached or encouraged to consider a basic/clinical research project? *(Circle one)*

   (1) Yes - strongly encouraged
   (2) Made aware but no significant encouragement
   (3) Never encouraged

Take a moment to think back to your experience as a college student, medical student, and resident. Did you ever spend 8 hr/wk or more for 10 weeks on a research project at any one of these times? *(Circle one)*

   (1) Yes
   (2) No [Skip to question 7]
   (3) Not applicable; I earned an advanced degree prior to medical school or I was enrolled in the MD/PhD program during medical school. [Skip to question 7].
5. Please estimate the number of months you were engaged in a lab-based or clinical research project in preparation for your career as a rheumatologist.

<table>
<thead>
<tr>
<th></th>
<th>No of months at 8 hr/wk or more on research</th>
</tr>
</thead>
<tbody>
<tr>
<td>College student</td>
<td></td>
</tr>
<tr>
<td>Medical student</td>
<td></td>
</tr>
<tr>
<td>Resident</td>
<td></td>
</tr>
<tr>
<td>Fellow</td>
<td></td>
</tr>
</tbody>
</table>

6. Were opportunities to identify a faculty mentor to sponsor a laboratory or patient-oriented research project well advertised in announcements made at meetings, conferences or web-sites when I was a... (Circle all that apply)

(1) Medical student
(2) Resident
(3) Fellow

7. Based on your experience so far in rheumatology, what do you perceive as the most important shortcomings to pursuing a career in clinical investigation. Please specify your level of agreement with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical researchers are undercompensated relative to colleagues who devote most of their professional activity to providing clinical care.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Faculty positions in medical schools and teaching hospitals are unattractive relative to private practice because of the expectation to obtain research grants/contracts and produce publications.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The time commitment and intellectual energy required for a successful career as a clinical investigator are simply too burdensome compared with that required for a successful career providing clinical service.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The job security for clinical researchers in a medical school or teaching hospital is comparable to that of rheumatologists who engage in private practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The total debt I incurred as an undergraduate and medical student was so burdensome I pursued a career as a clinical care provider to alleviate financial burdens.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Sustaining medical progress in all disciplines, including rheumatology, requires a steady investment in clinical innovation and discovery.

8. Do you perceive that the nation's long term commitment to fund clinical research in rheumatology is being accomplished? (Circle one)

   (1) At about the correct level
   (2) Below the level needed to advance clinical practice
   (3) Well above the level needed to sustain medical progress in rheumatology

9. As a rheumatology fellow, did you have the option of pursuing a basic/clinical research project if you wished to do so? (Circle one)

   (1) Yes
   (2) No

10. If you elected to pursue a basic/clinical research project, could you pick a mentor/project outside of the section or division of rheumatology? (Circle one)

    (1) Yes
    (2) No

12. If you elected to pursue a research project involving human subjects, did your institution make it possible for you to obtain prompt, high quality administrative support to prepare an IRB protocol even if you did not have external funding for the proposed project? (Circle one)

    (1) Yes
    (2) No

13. If you elected to pursue a project involving human subjects, did you have access to prompt high quality support for data acquisition and the statistical analysis of results even if you did not have external funding for the proposed project? (Circle one)

    (1) Yes
    (2) No

14. If you elected to do a laboratory-based research project would you have access to institutional core resources for prompt, reliable, high quality expertise for technical service for spectroscopy, molecular testing, etc. even if you did not have external funding for the proposed project? (Circle one)

    (1) Yes
    (2) No
15. As a resident or rheumatology fellow, were you offered assistance with the preparation of proposals of training/research grants to be submitted to the American College of Rheumatology, Arthritis Foundation, NIH-K awards, or NIH R01 applications? (Circle one)

(1) Yes
(2) No

III. Profile of basic or clinical research in rheumatology.

The third series of questions are designed to obtain information about your involvement in basic/clinical research. Your responses will be used to develop a national perspective of the scale and scope of clinical research in rheumatology.

1. Are you currently involved in basic or clinical research? (Circle one)

(1) Yes
(2) No [Skip to question 7]

2. What fraction of a 40 hr week did your supervisor and/or institution expect you to devote to research in the past 12 months? (Circle one)

(1) Less than one half day/week or none
(2) One half day/wk
(3) Two half days/wk
(4) Three half days/wk
(5) Four half days/wk
(6) Five half days/wk
(7) Six or more half days/wk

3. Do you have medical students, residents or fellows who pursue basic/clinical research projects under your direction or supervision? (Circle one)

(1) Yes
(2) No

4. When you are not engaged in research...

How many half days/wk do you devote to providing clinical care? _______

How many half days/wk do you devote to teaching medical students/residents/fellows? _______

How many half days/wk do you devote to administrative work? _______
5. Identify the source of money used to cover your salary when you spend time doing basic/clinical research: *(Circle all that apply)*

(1) Clinical income (direct or indirect sources of income)
(2) Medical school
(3) Hospital
(4) Grant/gift (from any source outside your institution)
(5) Federal Government including military and VA
(6) Endowment
(7) Industry/salaried employee
(8) Other source (please list all other sources: _________________________________)

6. At what stage of your training did you decide to include basic or clinical research as part of your career goal: *(Circle one)*

(1) undergraduate
(2) medical school
(3) residency
(4) fellowship
(5) post fellowship or new faculty

7. At what stage of your training did your interest in a career involving basic or clinical research wane: *(Circle one, and skip to question 17)*

(1) undergraduate
(2) medical school
(3) residency
(4) fellowship
(5) post fellowship or new faculty

8. Please designate one or more types of basic/clinical studies that best fit the investigative work you have done over the past 12 months: *(Circle all that apply)*

(1) Basic research: involves laboratory-based research including the development of new drugs, technologies, or devices.

(2) Translational research: entails bench to bedside or bi-directional research involving human subjects known to the investigator. Excludes the use of human specimens--cells/tissues--for laboratory-based studies.

(3) Disease-oriented research: use of human subjects to investigate the mechanisms or natural history of disease, improve the detection or diagnosis of a disease, and develop therapeutic interventions.

(4) Patient-oriented research: clinical trials, including Phase I, II, III trials of drugs, and biologics, tests of devices, and the evaluation of therapeutic interventions.
(5) Population-oriented research: includes outcomes studies of populations, health services and cost effectiveness research, studies of health quality including best practices and medical errors, epidemiology and genetic studies, and community-based clinical trials.

(6) Prevention-oriented research: primary and secondary prevention of disease in patients, and health promotion via education or behavioral change.

9. Have you ever prepared/submitted an application to a federal agency or foundation to obtain additional research training in basic or clinical aspects of rheumatology in either your current or former position? (Circle one)

(1) Yes
(2) No [Skip to question 17]

10. Please list the number of applications you submitted to gain additional research training in basic or clinical aspects of rheumatology. [Note K-awards are considered training for research careers and are not “research grants.”] List the number (1, 2, etc.) of new or revised applications you submitted to gain additional research training:

- NIH
- CDC
- FDA
- Other agencies within the Dept. Health and Human Services
- DOD
- VA
- Industry (pharmaceutical/biotech)
- Philanthropy (e.g. Doris Duke Foundation, Burroughs Wellcome Fund, etc.)
- Other (please specify): ___________________________________________

11. Have you ever submitted a grant application to get funding for a research grant from a federal agency or foundation for a basic/clinical study in your current or former position? (Circle one)

(1) Yes
(2) No [Skip to question 14]
12. Please specify the number of applications/proposals you submitted to obtain support for a research grant in basic or clinical rheumatology. List the number (1, 2, etc.) of new or revised applications you submitted as PI to each of the following agencies:

<table>
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<tr>
<th>Agency</th>
<th>Number</th>
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<tbody>
<tr>
<td>NIH</td>
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<td>DOD</td>
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<tr>
<td>Other (please specify):</td>
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</tbody>
</table>

13. Please specify the number of research grants you have received as PI to support a basic or clinical research project in rheumatology. List the number of grants (1, 2, etc.) awarded by each agency:

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<td>Philanthropy (e.g. Doris Duke Foundation, Burroughs Wellcome Fund, etc.)</td>
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<tr>
<td>Other (please specify):</td>
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</table>

14. Have you ever participated in the submission of a research grant application as a CO – PI for basic or clinical research in rheumatology? (Circle one)

(1) Yes
(2) No [Skip to question 17]
15. If you were the CO-PI on an application to gain funding for a basic/clinical research project, please list the number (1, 2, etc.) of new or revised applications submitted to each of the following agencies:

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<tr>
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<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIH</td>
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<tr>
<td>Other (please specify):</td>
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</table>

16. Please specify the number of research grants that have been funded where you serve as a CO-PI. List the number of research grants (1, 2, etc.) awarded/funded by each agency:

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<tr>
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<td>Other (please specify):</td>
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</table>

17. Would you be willing to take part in a similar survey sometime in the future? (Circle one)

(1) Will participate
(2) Will not participate

18. Please add any comments you wish to make about this survey. Your comments will be used to improve future surveys of clinical scholars in rheumatology and other medical specialties.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
IV. Demographic Background

The fourth series of questions are designed to obtain background information about you as a rheumatologist. Your responses will be used to establish a generic profile of rheumatologists in North America.

1. What is your gender? *(Circle one)*
   
   (1) Female  
   (2) Male  

3. To help ACR understand the diversity of early career rheumatologists, please select the ethnic background that best describes you. *(Circle one)*
   
   (1) African American  
   (2) American Indian  
   (3) Asian  
   (4) Caucasian  
   (5) Hispanic/Latino  
   (6) Mixed  
   (7) Other (please specify): ____________________________________________

4. In what year were you born? _______

5. What is your citizenship status?  
   For members residing in the US: *(Circle one)*
   
   (1) U.S. Citizen  
   (2) Permanent resident  
   (3) Non-U.S. Citizen  
   (4) Other (please specify): ____________________________________________

6. What is your citizenship status?  
   For members residing in Canada: *(Circle one)*
   
   (1) Canadian Citizen  
   (2) Permanent resident  
   (3) Non-Canadian Citizen  
   (4) Other (please specify): ____________________________________________

7. List the name of the college or university where you earned your undergraduate or bachelor's degree. ________________________________________________________

8. List the name of the medical school where you earned your medical degree.  
   ________________________________________________________________
9. In what country did you attend medical school? (Circle one)
   (1) USA
   (2) Canada
   (3) Other (please specify): __________________________

10. Designate the medical degree you earned. (Circle one)
    (1) MD
    (2) DO
    (3) MBBF
    (4) Other (please specify): __________________________

11. In what year did you earn your medical degree? ______

12. List the name of the medical school/teaching hospital where you completed your residency in internal medicine. ______________________________________________

13. Did you pursue fellowship training in rheumatology? (Circle one)
    (1) Yes
    (2) No [Skip to question 15]

14. List the medical school/teaching hospital where you completed your fellowship training in rheumatology. ______________________________________________

15. In what year did you complete your fellowship? ______

16. Are you Board Certified in rheumatology? (Circle one)
    (1) Yes
    (2) No

17. Do you hold an advanced degree in addition to your medical degree? (Circle one)
    (1) Yes
    (2) No [End survey]

18. Select the advanced degrees you earned. (Circle all that apply)
    (1) MS or MSc
    (2) MPH
    (3) MBA
    (4) PhD
    (5) DSc
    (6) Other (please specify): __________________________

19. In what year did you earn your last advanced degree? ______
20. List the name of the institution where you earned your last advanced degree.

_______________________________________________________

Thank you for taking the time to complete this survey.

Your survey has been submitted, please close your browser.
The Committee on Research of the American College of Rheumatology thanks you for taking part in this survey.