# University of Florida College of Medicine - Jacksonville Rheumatology Fellowship Program Research Rotation

#### Goals

All trainees receive practical and theoretical training in the principles of research, including training in the ethical conduct of research, to enable each trainee to evaluate the scientific literature and become a critical decision-maker. Every fellow is encouraged to submit at least one abstract to a national meeting and to play a significant role in at least one paper submitted for publication.

Early on in their first year, fellows identify a mentor and choose either a laboratory-based or a clinical research project. This project is conducted during a month in the middle of the first year and additional time allocated throughout the second year of fellowship. In addition to their actual research work, formal training during these years may include lab seminars and attendance at national meetings in their particular research area of emphasis.

The purpose of laboratory-based research is to provide fellows with a meaningful training experience in experimental science that is relevant to emerging concepts in immunology and rheumatology. The goals of this experience are to enable the trainee to critically evaluate new experimental data and scientific paradigms as they emerge and impact clinical practice and to prepare the trainee for a potential career in academic investigative rheumatology.

The purpose of the clinical research experience is to provide fellows with educational training in clinical research methods that are relevant to patients with rheumatic disease. The goals of this experience are to provide an exposure to clinical research and research presentation to trainees planning careers clinical practice and to prepare interested trainees for a potential career in academic rheumatology as a clinical investigator or clinician educator.

<u>Mix of diseases:</u> Our rheumatology division is interested and participating in many clinical trials including rheumatoid arthritis, psoriatic arthritis, and systemic lupus erythematosus. We have a special interest on studying the role of ultrasound in diagnosis and follow up of rheumatologic conditions.

<u>Patient Characteristics:</u> the patient population is diverse, male and female, of all ages from adolescent to geriatric, representing most ethnic and racial backgrounds, from all social and economic statuses.

<u>Types of clinical encounters:</u> patient encounters will occur in the outpatient clinic.

<u>Procedures:</u> Diagnostic ultrasound and follow up ultrasound in patients participating in our research projects.

#### Timeline

#### Year 01 Months 1-7

During this period, the trainee is expected to meet with the Program Director and research faculty to select a research mentor and outline a research project to be completed within the training period.

#### Year 01 Months 7-12

During this period the fellow will start working on the research project and expected to:

- 1. Begin acquiring the materials and skills necessary to complete the proposed research project, including background reading.
- 2. Attend his/her mentor's research meetings.
- 3. Attend research seminars and journal clubs broadly relevant to their proposed research.
- 4. Attend courses to acquire skills necessary for the completion of the research project.

### Year 02 Months 13-18

During this period, the fellow will:

- 1. Apply appropriate research modalities to acquire data necessary for the completion of the research project as well as planning data analysis and write-up.
- 2. Continue to attend his/her mentor's research meetings.
- 3. Continue to attend research seminars and journal clubs broadly relevant to their proposed research.
- 4. Continue to attend courses to acquire skills necessary for the completion of the research project.

### Year 02 Months 18-24

During this period, the fellow will:

- 1. Analyze and report data.
- 2. Regularly attend and participate in his/her mentor's research meetings and regularly scheduled, relevant research seminars.
- 3. Complete writing and submission process.

Each fellow will be expected by the end of the fellowship to have at least one abstract accepted at a major scientific congress such as the annual American College of Rheumatology conference. In addition each fellow will be expected to publish a case report or review in a peer reviewed journal, and have at least one research manuscript submitted to or accepted by a peer reviewed journal.

## Objectives

# Patient care

### PGY 4

• Consider health care delivery, management of specific disease processes, screening for diseases or other aspects of health care as an area to study.

#### PGY 5

- Prioritize patient safety in priority in studies involving research subjects
- Describe the role of a data safety monitoring board
- Describe how to conduct a research study using human subjects according to ethical standards

# Medical knowledge

#### PGY 4

- Formulate a hypothesis.
- Formulate a research plan.

#### PGY 5

- Describe approaches to study design.
- Discuss uses of various statistical approaches.
- Demonstrate knowledge on the background of the specific topic and formulate a research question.
- Prepare a thorough background research and summary of the current state of knowledge.

## **Practice-Based Learning and Improvement**

## PGY 4

- Formulate a research methodology.
- Access, appraise, and assimilate the current medical literature pertaining to the research topic.

#### PGY 5

- Properly execute the research project.
- Use appropriate statistical analysis and presentation of data.
- Write a manuscript suitable for publishing in the peer-reviewed medical literature.

# Interpersonal and Communication Skills

### PGY 4

- Establish and maintain professional relationships with patients participating in clinical trials and healthcare team members.
- Manage and maintain efficiency of the research team.

#### PGY 5

- Explain the study protocol, potential side effects to the patient and obtain informed consent from the patient.
- Discuss project with advisor and appropriate consultants including statisticians and other specialists in research design and or scientific knowledge.
- Present one's project at faculty meetings.

## **Professionalism**

# PGY 4 and PGY 5

- Actively seek and be receptive to feedback on performance.
- Understand respect and interact effectively with patients of different culture, age, gender, and disabilities.
- Describe and adhere to HIPPA rules.

## PGY 5

- Interact collegially with his/her peer group and other healthcare professionals that are involved in his/her research project: act responsibly and effectively on pursuing recognition and success of his research theme.
- Lead the research team: Participate in research planning and assist the PGY 4 fellow and other trainees who participate in rheumatology research projects.

## **Systems-Based Practice**

## PGY 4 and PGY 5

- Discuss cost-effective research issues.
- Adhere to legal issues inherent in research.
- Describe research ethics.
- Participate in the regulatory approvals process by completing HIPPA compliance training and by obtaining necessary approval for the conduct of the proposed research project

# PGY5

- Demonstrate excellent knowledge on study design, epidemiology and biostatistics.
- Demonstrate excellence in the utilization of appropriate resources for research in the University of Florida.

# Methods of achieving objectives

- Didactic (teaching) sessions with the attending physician.
- Select handouts and journal articles on pertinent topics.
- Core conference series.

## Assessment tools

- Direct observation and global assessment by the attending
  - The fellow will keep a research portfolio and his progress will be evaluated in a monthly research meeting.
  - Direct feedback will be given on each research meeting and written evaluation/feedback regarding the research progress will be given bi-annually (midyear and end of year evaluation)
- Multisource assessment (patient, peers, clerical staff, nurse, self)
- Faculty -based quizzes
- ACR questions

## **Evaluation process**

- Goals and objectives will be reviewed with the fellow at the beginning of each rotation.
- Verbal feedback throughout and at the completion of the rotation from the attending.
- Evaluation form completed by the attending and reviewed with the fellow.

Evaluation submitted to the administrative office for review by the PD