Pediatric Rheumatology Fellowship Program

PROGRAM GOALS AND OBJECTIVES

The overriding goal of the Pediatric Rheumatology Fellowship program is to provide excellent training in the practice and science of Pediatric Rheumatology and in Rheumatology-related research skills through mentored relationships involving progressive independence for the fellow. The following specific components contribute to this goal.

1) Identify the fellow’s individual short- and long-term professional goals and interests.
2) Provide effective training, feedback, and support for the trainee.
3) Provide a structured learning experience that will enable the trainee to:
   a) Develop clinical and intellectual expertise in and experience with the diagnosis and management of pediatric rheumatic and musculoskeletal diseases in the inpatient and outpatient setting.
   b) Develop an independent, thoughtful, organized, and flexible approach to the evaluation of patients with a range of symptoms and signs that suggest the presence of a rheumatic or musculoskeletal disease.
   c) Develop and enhance life-long learning skills that allow the trainee to adapt to the changing spectrum of pediatric rheumatic diseases and their changing management, including changes in the health care system and associated technologies.
   d) Learn the professional and interpersonal skills required for effective communication to the primary care team of conclusions and recommendations for diagnosis and patient management.
   e) Assure that all professional interactions with patients and colleagues are performed with respect for self and others and with the highest ethical and intellectual standards.
   f) Develop effective teaching skills for students, residents, and colleagues.
   g) Recognize and respond to both psychosocial and economic factors that impact on patient care.
   h) Develop expertise in the design, performance, analysis, and communication of scholarly activities, involving clinical, epidemiological, and/or basic science investigation.

The overall objectives of the Pediatric Rheumatology Fellowship are as follows.

With advice and support of faculty, the fellow should:

1) Define his/her individual goals, make these goals known to the Program Director in regular meetings, and assure that the program helps the fellow meet these goals successfully.
2) Perform consultation on a broad spectrum of hospitalized patients with rheumatic or musculoskeletal disorders.

3) Evaluate a broad spectrum of outpatients with potential or actual rheumatic or musculoskeletal disorders.

4) With skilled and experienced senior staff, observe and develop effective consultative skills for the efficient evaluation of patients referred for pediatric rheumatology consultation, learning how to communicate with referring physicians and other members of the healthcare team, and coordinating responsibilities and information with the patient’s primary care physician in order to ensure uninterrupted patient care.

5) Learn to speak and write effectively by regularly giving well-planned lectures and discussions to colleagues and by writing manuscripts for publication.

6) Develop an independent research program with the guidance and support of one or more faculty members. Perform and complete the project, and present and publish results in peer-review journals.

7) Seek and respond effectively to feedback and advice.

8) Provide feedback regarding the fellowship program and the faculty members.

9) Meet the following clinical goals:
   a. Understand how to differentiate between normal and pathologic states related to pediatric rheumatic diseases
   b. Understand how to manage common signs and symptoms of pediatric rheumatic disease.
   c. Understand how to diagnose and manage rheumatic conditions which do not require referral
   d. Understand how to recognize, manage and refer rheumatic conditions which require consultation or referral
   e. Understand the appropriate use of medical therapies in managing rheumatic diseases in children
   f. Understand the appropriate use of physical and occupational therapy in managing rheumatic diseases in children
   g. Understand the laboratory methods used in pediatrics relating to the management of rheumatic diseases in children

**ACGME CORE COMPETENCIES**

In accordance with the ACGME’s long-term effort to emphasize educational outcome assessment in fellowship programs, our program has incorporated the 6 core competencies into the overall program and fellow evaluation process. This includes incorporating the core competencies into our web based evaluation tool along with other methodologies.
The ability to demonstrate educational outcomes as the achievement of competency-based learning objectives provides evidence of preparing competent physicians who can meet the health care needs of the public. Educational assessment is intended to:

- Assess fellows' attainment of competency-based objectives
- Facilitate continuous improvement of the educational experience
- Facilitate continuous improvement of fellow performance
- Facilitate continuous improvement of fellowship program performance

The 6 core areas for monitoring fellow competency are:

**PATIENT CARE**

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows are expected to:

- communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- gather essential and accurate information about their patients
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- develop and carry out patient management plans
- counsel and educate patients and their families
- use information technology to support patient care decisions and patient education
- perform competently all medical and invasive procedures considered essential for the area of practice
- provide health care services aimed at preventing health problems or maintaining health
- work with health care professionals, including those from other disciplines, to provide patient-focused care

**MEDICAL KNOWLEDGE**

Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Fellows are expected to:

- demonstrate an investigatory and analytic thinking approach to clinical situations
- know and apply the basic and clinically supportive sciences which are appropriate to their discipline

**PRACTICE-BASED LEARNING AND IMPROVEMENT**

Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Fellows are expected to:

- analyze practice experience and perform practice-based improvement activities using a systematic methodology
• locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
• obtain and use information about their own population of patients and the larger population from which their patients are drawn
• apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
• use information technology to manage information, access on-line medical information; and support their own education
• facilitate the learning of students and other health care professionals

INTERPERSONAL AND COMMUNICATION SKILLS
Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Fellows are expected to:
• create and sustain a therapeutic and ethically sound relationship with patients
• use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills
• work effectively with others as a member or leader of a health care team or other professional group

PROFESSIONALISM
Fellows must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Fellows are expected to:
• demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
• demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
• demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities

SYSTEMS-BASED PRACTICE
Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Fellows are expected to:
• understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
• know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
• practice cost-effective health care and resource allocation that does not compromise quality of care
• advocate for quality patient care and assist patients in dealing with system complexities
• know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

**ASSIGNMENT GOALS AND OBJECTIVES**

**Outpatient Pediatric Rheumatology Clinic and Inpatient Consult Service**

**Goal:**
Over the course of three years, the fellow will gain all the necessary skills and acumen to diagnose and manage pediatric and young-adult patients with acute and chronic rheumatic and musculoskeletal diseases.

This is expected to occur in a stepwise fashion, primarily during the first year:

**Months 1-3:** Obtaining an appropriate history, performing a physical exam, and developing a differential diagnosis.

**Months 4-6:** Selecting and interpreting appropriate diagnostic tests.

**Months 7-9:** Development of a treatment plan, including medical therapy, appropriate referrals, use of additional services (e.g. physical therapy, occupational therapy, home nursing, social work).

**Months 10-12:** Comprehensive longitudinal care of patients, observing response to therapy, modifying therapy appropriately

**Objectives:**

**Patient Care:** The fellow will demonstrate the ability to provide appropriate and effective pediatric rheumatology care for patients in the outpatient clinic and inpatient setting.

**Medical Knowledge:** The fellow will demonstrate a passion and commitment to in-depth learning based on individual patients and also the ability to apply new and emerging medical knowledge derived from basic and clinical research to the care of patients.

**Practice-Based Learning and Improvement:** Primarily through case discussions centered on outpatients, the fellow will critically evaluate the efficacy of his or her practice, demonstrate the ability to apply new knowledge to the care of patients, and change his or her practice based on these reflective activities.

**Interpersonal and Communication Skills:** The fellow will demonstrate the ability to interact effectively with patients, families, and members of the health care team in this arena, both in person and by telephone.
**Professionalism:** The fellow will demonstrate the ability to take responsibility for the care of each patient and to care for patients from diverse backgrounds.

**Systems-Based Practice:** The fellow will demonstrate the ability to navigate the medical system, including activities such as arranging appropriate and timely consultations with other providers and communicating with medical insurance providers on behalf of patients.

**Research Experience**

**Goal:**
The research program in Pediatric Rheumatology strives to produce new and important basic and clinical scientific information that will advance the understanding of the pathophysiology and optimal management of pediatric rheumatic diseases. Research training will provide subspecialty fellows with the opportunity to gain expertise in research methodology important for clinical and basic science investigations. It is a goal of the program in Pediatric Rheumatology to train fellows capable of publishing in peer-review journals, compete for funding on a national level, and provide long-term leadership in the field of Pediatric Rheumatology.

Pediatric Rheumatology fellows will explore areas of potential research based on previous interests, or interests developed early in their fellowship. Research projects will be identified during the first year of fellowship in close association with a primary research mentor, and will be designed to both fulfill requirements for a scholarly product for board certification, but more importantly serve as a springboard for a productive research career. During the clinically-focused first year of fellowship, the fellow is expected by month 3 to initiate conversations with faculty regarding possible research projects, by month 6 to define a major research direction and begin appropriate background reading, and by month 9 to have a solid grasp of their research project. As fellows move into the 2nd and 3rd years, they will have twenty-four months of highly protected time to pursue their research project and advanced educational opportunities. Basic science research opportunities in well-funded, well regarded and highly published laboratories at the University of Minnesota allow fellows to be taught basic science research techniques, experimental design, data acquisition and analysis. Opportunities for advanced education and mentored research in clinical sciences will be available through the University of Minnesota’s Masters in Clinical Research program, the Office of Clinical Research, and newly established Clinical and Translational Science Institute (CTSI).

**Objectives:**

**Medical Knowledge:** The fellow will select an area of research relevant to cutting edge pediatric rheumatology.

**Interpersonal and Communication Skills:** The fellow will demonstrate the ability to interact effectively with a research team. The fellow will be expected to be able to
communicate his or her research findings in a public forum, such as Citywide Rheumatology Conference. The fellow will also be expected to prepare an abstract and poster presentation along with a manuscript for submission to a peer-reviewed journal.

**Professionalism:** The fellow will demonstrate a working knowledge of the ethics of biomedical research.

**Citywide Rheumatology Conference**

**Goal:**
Each academic year, the fellow will present a one-hour sessions at Citywide Rheumatology conference. First year fellow presentations will be a case conference. In their second and third year fellows will present one journal club and one research talk.

**Objectives:**
- **Medical Knowledge:** Preparing and presenting these conferences requires that the fellow be up-to-date on the most current knowledge related to the chosen topic. The fellow is expected to demonstrate the ability to acquire, assimilate, present, and discuss his or her new knowledge with colleagues.

  Practice-Based Learning and Improvement: Discussion of cases or journal articles allows the fellow to see the variety of style practices among local rheumatologists, to discuss how emerging knowledge will affect practice, and to refine his or her own practice accordingly.

  Interpersonal and Communication Skills: The fellow will demonstrate the ability to relate medical and scientific knowledge to other health professionals in a clear and organized fashion.

  Professionalism: The fellow will gain an understanding that the practice of pediatric rheumatology requires lifelong dedication to learning.

  Systems-Based Practice: In his or her case presentation, the fellow will demonstrate an understanding of how various medical systems influence the care of the patient.

**Pediatric Rheumatology Journal Club**

**Goal:** Once per month, one of the fellows will lead an hour-long discussion of a recent article relevant to pediatric rheumatology; other participants will include other pediatric rheumatology fellows, faculty, and nurses.

**Objectives:**
- **Medical Knowledge:** The fellow will demonstrate the ability to select a relevant article (with faculty guidance), research the relevant background information, present the new findings, and discuss the implications of the new findings to the care of patients.
Practice-Based Learning and Improvement: If the chosen article indicates that a change in current practice might be warranted, the fellow will recognize this and discuss the benefits and disadvantages of such a change.

Interpersonal and Communication Skills: The fellow will demonstrate the ability to relay new medical knowledge to other members of the health care team.

**Morbidity, Mortality, and Management (3M) Conference**

**Goal:**
Once per academic year, a fellow will prepare a case conference for presentation to the Department of Pediatrics. The case chosen will be of interest to general pediatricians. Each fellow will give at least one 3M presentation during their fellowship training.

**Objectives:**
- **Medical Knowledge:** The fellow will demonstrate thorough knowledge of the case being presented, including relevant information from recent basic, clinical, and cognate research.
- **Interpersonal and Communication Skills:** The fellow will demonstrate the ability to speak in a large public forum to other health care providers and to discuss a case in a clear and organized fashion.
- **Systems-Based Practice:** The cases chosen for 3M conference often involve systems issues such as improving the time to diagnosis, enhancing communication between primary physicians and consultants, avoidance of medical errors, and so forth. The fellow will be expected to identify how systems issues influenced the care of the patient presented, and to suggest appropriate improvements for the future.

**Pediatric Rheumatology Tutorial**

**Goal:** During the first year of fellowship, the fellow will meet weekly with a member of the Pediatric Rheumatology faculty to discuss a chapter from *The Textbook of Pediatric Rheumatology, 5th edition*.

**Objectives:**
- **Medical Knowledge:** The fellow will demonstrate a commitment to learning pediatric rheumatology and will demonstrate understanding of the material. The fellow is expected to the tutorial sessions prepared for a discussion, including questions that arose during the reading of the chapter.
- **Interpersonal and Communication Skills:** The fellow is expected to be able to converse one-on-one and in-depth with a colleague about topics spanning the full range of the discipline of pediatric rheumatology.