

## ABSTRACT: 2013 ELAM Institutional Action Project Poster Symposium

**Project Title:** Planning a Cross-Institutional, Postdoctoral T32 Training Grant in Autoimmunity and Sterile Inflammation

**Name and Institution:** Ellen M. Gravallesse M.D., University of Massachusetts Medical School

**Collaborators:** Ann Rothstein Ph.D. (Co-Principal Investigator), Anthony Imbalzano Ph.D. (Director of Postdoctoral training), Cynthia Furhman (Assistant Dean, Career and Professional Development), Nancy Liu M.D. (Fellowship Director in Rheumatology)

**Background and Challenge:** Scientific inquiry has evolved beyond traditional departmental boundaries, requiring collaboration across disciplines and among investigators with common thematic and mechanistic interests. To train investigators poised to meet the challenges of scientific inquiry in the future, our training environments must embrace cross-disciplinary themes and provide specific training in areas ripe for translation to human disease. The fields of autoimmunity and sterile inflammation have seen an explosion of newly identified molecules and pathways in both innate and adaptive responses that impact human disease. It has thus become increasingly important to train investigators with specific expertise in these areas. Additionally, we face a challenge in attracting and retaining research-minded MDs in Rheumatology. **Opportunity:** The program will instill upcoming investigators with the appropriate conceptual framework and state-of-the-art technologies to tackle challenging clinically relevant topics, and will foster novel institution-wide collaborations. Once such a training program is in place, the opportunity exists for leveraging it through fundraising for support of additional trainees and for development of a research institute or center.

**Purpose/Objective:** To submit an interdisciplinary T32 training grant for postdoctoral trainees to the NIH in September 2013 in the area of autoimmunity and sterile inflammation that will initially incorporate five slots, including two for an MD or MD, PhD rheumatology fellow. These slots will extend the Rheumatology Fellowship to three years and will utilize existing program slots. Three additional slots will be requested for MD, PhD or MD, PhD investigators. The number of training slots could be expanded once the grant is underway and has demonstrated success.

**Methods/Approach:** We have approached the NIH and received enthusiastic support for this concept, targeting submission to NIAID. We are heeding advice to begin with five training slots. We have identified 20 eligible and highly accomplished investigators who will serve as trainers, spanning four departments and five divisions across the institution, including the Medicine (Rheumatology, ID, Cardiology, Pulmonary, Endocrinology), Pathology, Molecular Medicine and Microbiology and Physiological Systems. A series of planning meetings have been held with administrative leaders, leadership of the CTSA, Postdoctoral Office, Office of Career and Professional Development, Office of Diversity, and leaders of recently successful T32 applications. Coursework in ethical conduct of research, as well as relevant Immunology, Pathology and Translational Research courses will be required of trainees. Career planning meetings with Dean Furhman upon entry to the program, and at least every six months thereafter will be required. Curriculum will be further developed over the next two months and an initial draft of the submission will be prepared by late May. An Executive Committee is being appointed to oversee policies and screen students for admission. Other committees will oversee: curriculum, seminars and journal clubs and minority recruitment.

**Outcomes and Evaluation:** Funding of this application will be the ultimate evaluative metric. Additional metrics for evaluation of the program will include number of total applicants, number of rheumatology fellow applicants, positions obtained by graduates, collaborative publications that cross divisions and/or departments and student evaluations. Yearly meetings will be held with program directors, Executive Committee members and students to solicit further input.



# Planning a Cross-Institutional, Postdoctoral T32 Training Grant in Autoimmunity and Sterile Inflammation

Ellen M. Gravallese M.D.

Collaborators: Ann Rothstein Ph.D. (Co-Principal Investigator), Anthony Imbalzano Ph.D. (Director of Postdoctoral Training), Cynthia Fuhrmann (Assistant Dean, Career and Professional Development), Nancy Liu M.D. (Fellowship Director in Rheumatology)



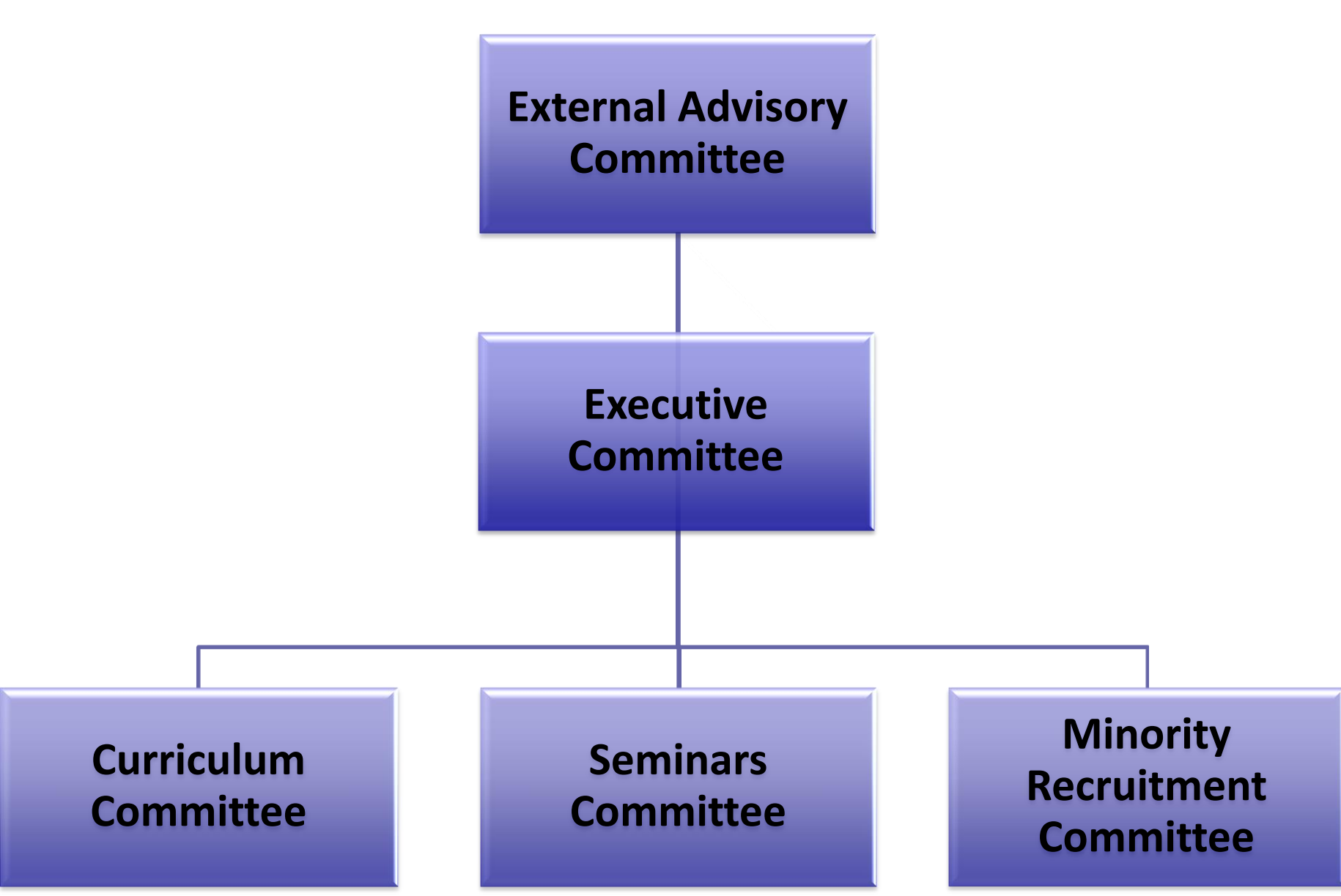
## Background and Challenge

Scientific inquiry has evolved beyond traditional departmental boundaries, requiring collaboration across disciplines and among investigators with common thematic and mechanistic interests. To train investigators poised to meet the challenges of scientific inquiry in the future, our training environments must embrace cross-disciplinary themes and provide specific training in areas ripe for translation to human disease. The fields of autoimmunity and sterile inflammation have seen an explosion of newly identified molecules and pathways in both innate and adaptive responses that impact human disease. It has thus become increasingly important to train investigators with specific expertise in these areas. Additionally, we face a challenge in attracting and retaining research-minded MDs in Rheumatology.

## Objectives

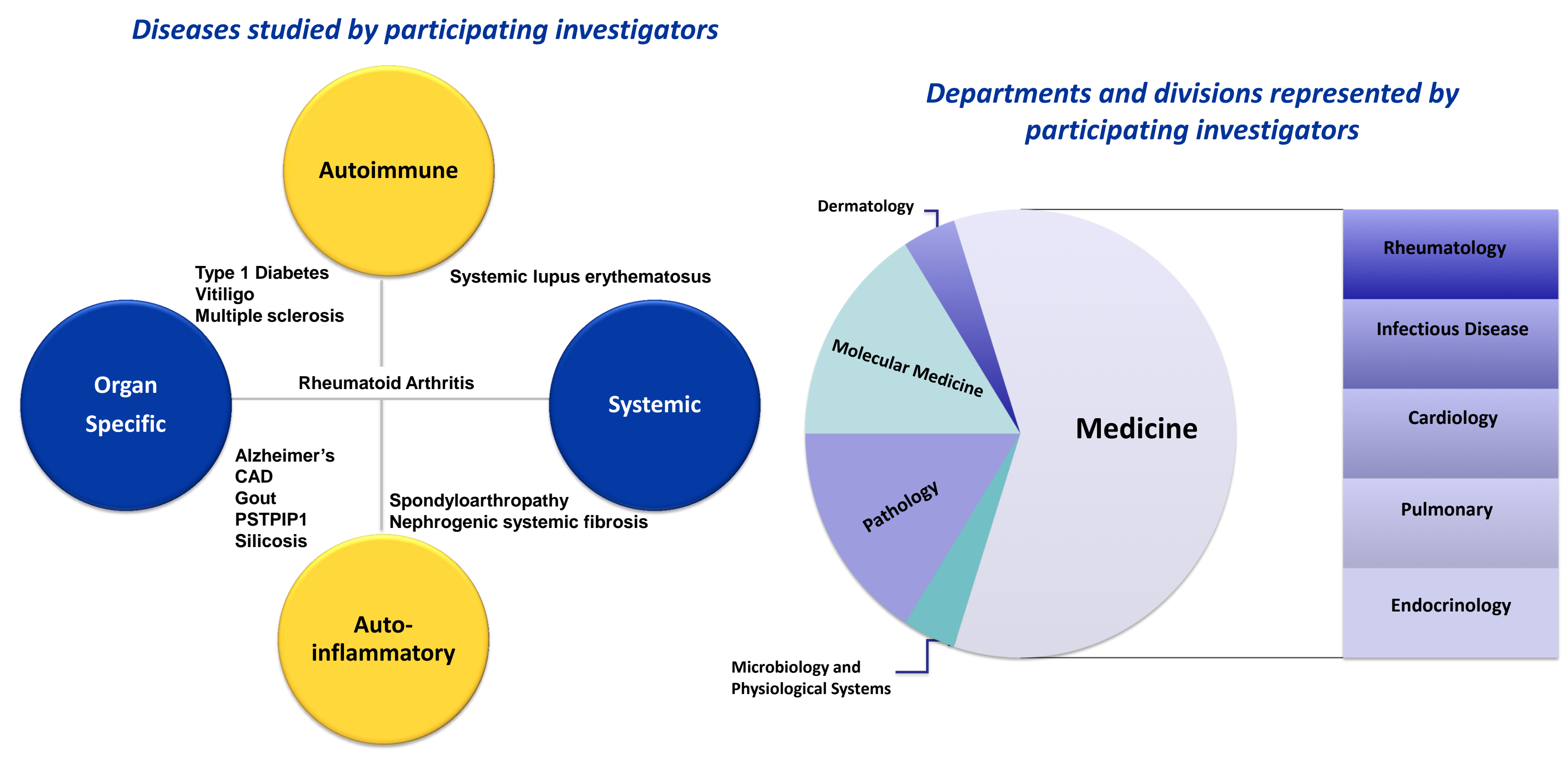
The program will provide upcoming investigators with the appropriate conceptual framework and state-of-the-art technologies to tackle challenging, clinically relevant topics, and will foster novel institution-wide collaborations. Once such a training program is in place, opportunity exists for leveraging it through fundraising for support of additional trainees and development of a Research Institute or Center. We will begin by requesting 5 slots for both PhD and physician-scientists.

## T32 Committee Structure

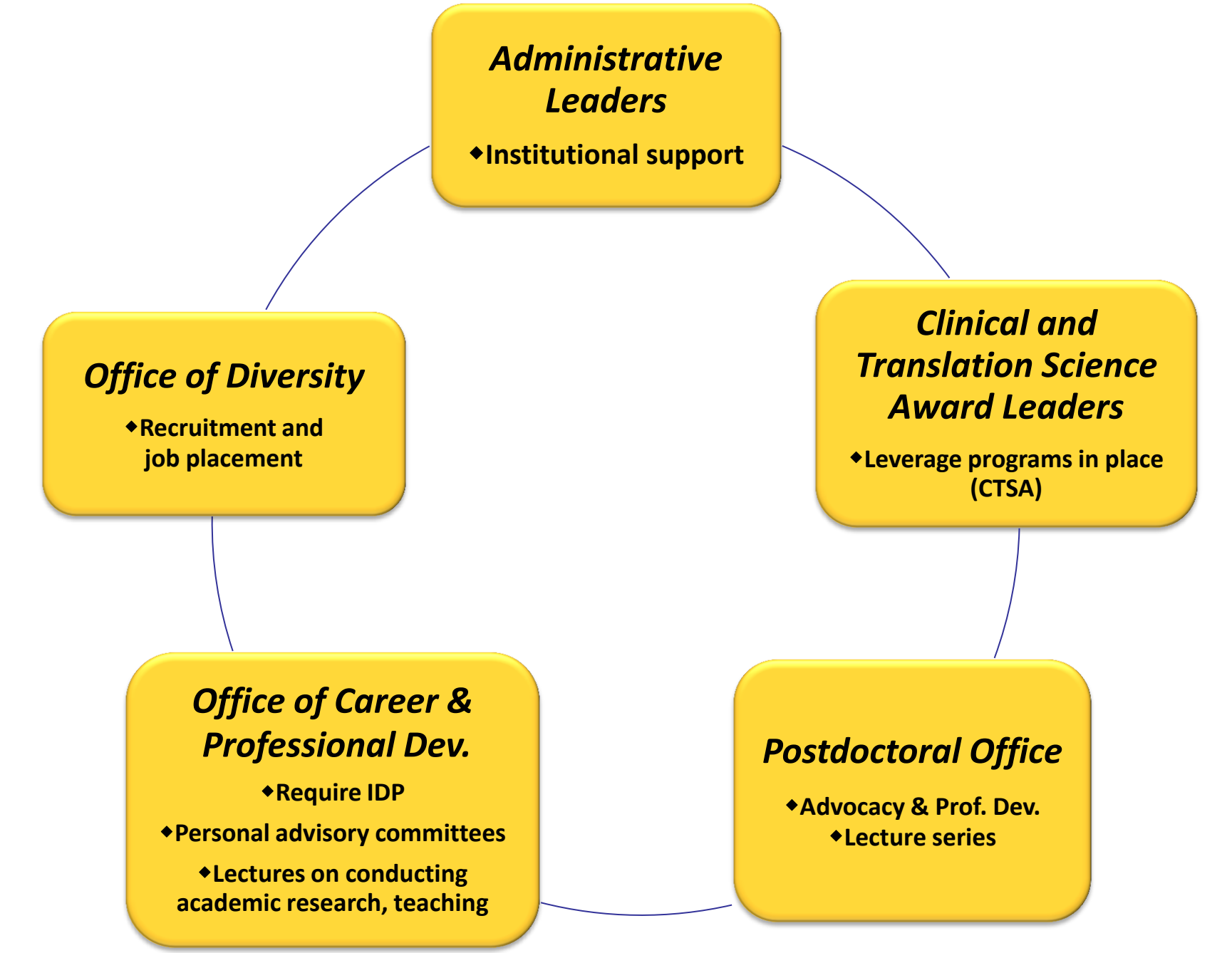


**Advisory Committee:** Abul Abbas, MD, UCSF; Antony Rosen MD B.Sc., Johns Hopkins  
**Executive Committee:** Ellen Gravallese MD, Ann Rothstein PhD, Kate Fitzgerald, PhD  
**Curriculum Committee:** Kate Fitzgerald PhD  
**Seminars Committee:** Egil Lien PhD  
**Minority Recruitment Committee:** Neal Silverman PhD

## Scientific Content and Institutional Participation



## Planning Meetings



Meetings held with institutional leaders, heads of relevant programs and offices already in place for postdoctoral trainees (Agreed upon contributions to T32 are bulleted below individual headings)

## Formal Training Opportunities

- Ethical Conduct of Research
- Advanced Immunology course (UMass and FOICIS)
- Seminar series/journal clubs
- "Research in progress" presentations; "job talks"
- Training in grant writing

## Metrics for Success

- Funding of T32
- Total number of applicants / Positions obtained by graduates
- Trainee publications / Collaborative publications across departments
- Trainee funding: K awards, fellowship awards

## Current Fellow. Program

	Year 1	Year 2
Months on Consults	4	2 1/2
Half Days in Clinic	3 plus electives	3 plus electives

## Proposed Fellow. Program

		Year 1	Year 2	Year 3
Research Track	Mo. on Consults	5	0	0
	½ Days in Clinic	4	2	1
Clinical Track	Mo. on Consults	3	4 1/2	--
	½ Days in Clinic	3+	3+	--

## Summary and Impact

University of Massachusetts Medical School has a tremendous breadth and depth of ongoing basic and translational research, especially in this scientific area. However, we have relatively few training grants and it has been difficult to attract research-minded fellows in Rheumatology. This training grant combines PhD and MD investigators into one thematic, interdisciplinary program that focuses on disease-oriented, translational research, and provides a unique institution-wide program that will enhance collaboration and visibility.

## Timeline for Submission

