

**BOSTON UNIVERSITY MEDICAL CENTER
DEPARTMENT OF MEDICINE
ANNUAL REPORT
SECTION OF HYPERTENSION
JULY 1, 2008-JUNE 30, 2009
FISCAL YEAR 2009**

SECTION SUMMARY REPORT

1. Introduction

As in the past, the Section's activities are divided among patient care, teaching and research, and the Section's faculty is involved in a number of events at the national and international level.

2. Research Activities

The Section is most heavily research-oriented, with activities ranging from clinical research to experimental animal studies to genetic and genomic basic research. Research Associates work on specific projects under the supervision of the clinical faculty and that of the two molecular biologists, Drs. Ekaterina Kintsurashvili, and Hector Lucero, both Research Assistant Professors.

The Section's research activities are supported in part by the NIH via R01 grants and in part via small grants from the pharmaceutical industry. Since November 2008, the Section has also established a collaboration with the Alapis Research Laboratories that are now located on campus. Over the past year the Section's research activities have consisted of: a) experimental animal studies designed to assess the cardioprotective properties of a novel compound, a bradykinin analog with high potency, resistance to degradation and highly selective agonistic capacity and affinity for the B₂ type receptor of bradykinin; in mice submitted to acute myocardial infarct via ligation of the descending coronary artery, treatment with this agent resulted in significant attenuation of all indices of left ventricular dysfunction and tissue damage, b) studies of non-enzymatic functions of the angiotensin converting enzyme in the cellular and molecular level, and c) study of a novel gene, the Cmya 3 (discovered recently by our group) whose product is still unknown, but appears to be involved in the development of ischemic heart disease.

3. Educational Activities

Dr. Haralambos Gavras lectures extensively (locally, nationally and internationally) mostly on updates on the evaluation and treatment of hypertensive patients and on the pathophysiology and mechanisms of hypertension. He has given clinical and research teaching rounds and other invited lectures at several universities as well as national and international conferences in the US, China, Germany and Greece over the last year. Dr. Irene Gavras is responsible for teaching students and house staff who choose elective rotations in Hypertension.

The Hypertension Laboratory trains Research Fellows in the genetic epidemiology and molecular genetics of hypertension, as well as the production and use of specific experimental animal models suitable for investigation of pathophysiology and physiopharmacology of hypertensive disorders.

4. Clinical Activities

Clinical activities consist of four outpatient clinic session per week and inpatient consultations as requested, conducted by the two senior faculty members, Drs. Haralambos Gavras and Irene Gavras. The patient load consists of highly selected cases referred because they present difficult diagnostic or management problems.

5. National/International Activities

Dr. H. Gavras is a member of ad hoc Study Sections of the NIH and a member of the European Research Council (Brussels, Belgium). He is also a past president and current member of the Nominating Committee of the American Society of Hypertension. He is a member of the editorial board of several journals related to hypertension.

Dr. I. Gavras is a member of the Specialists Examination Committee of the American Society of Hypertension and the co-chair of the annual International Conference of Fixed Drug Combinations. She is also on the editorial board of journals related to hypertension.