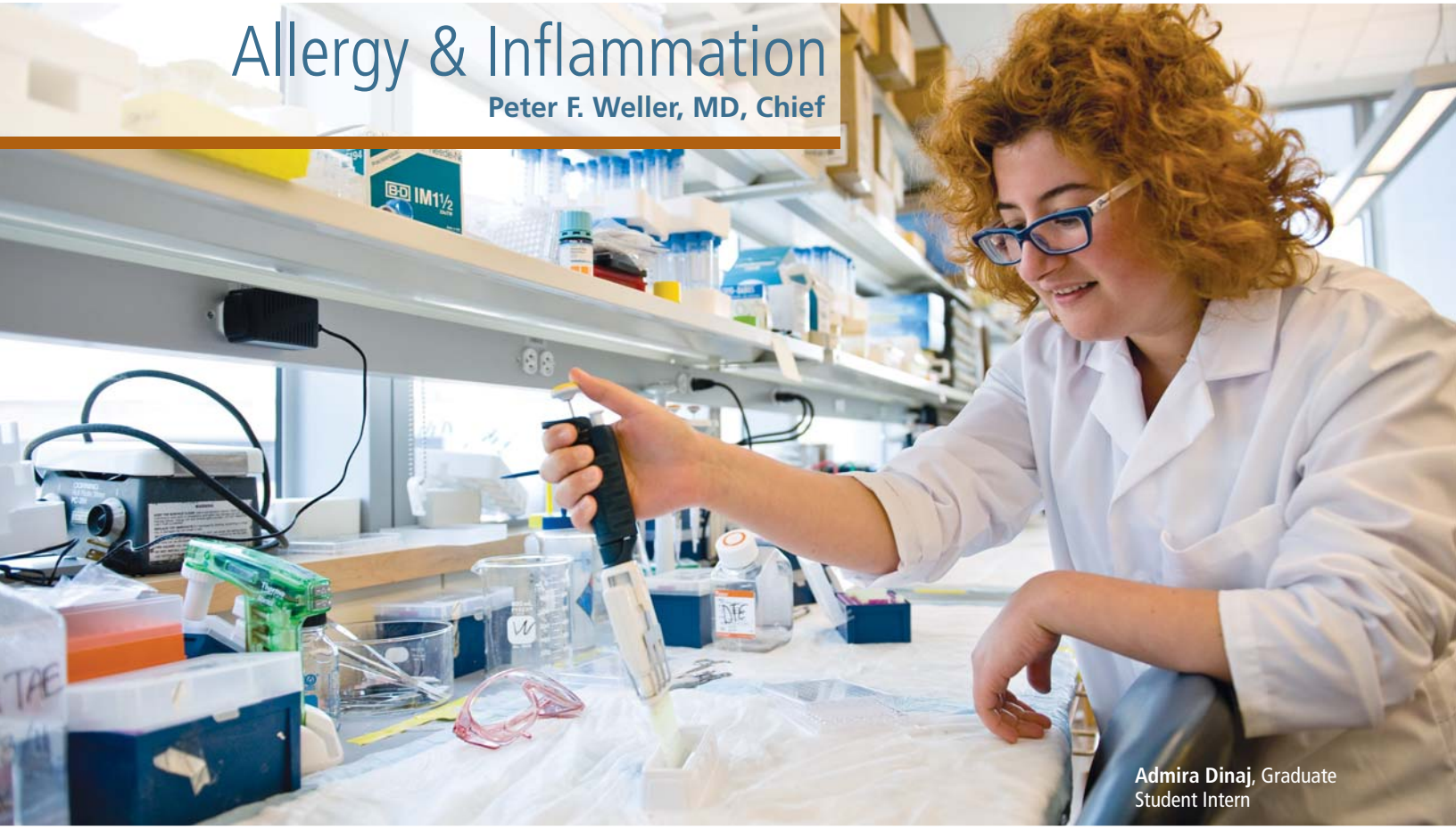
# Allergy & Inflammation

**Peter F. Weller, MD, Chief**



**Admira Dinaj**, Graduate Student Intern

**The Division of Allergy and Inflammation provides excellent patient care, teaching and research pertinent to allergic and related immunologic diseases. Clinical and research faculty are nationally and internationally recognized for their expertise. Educational activities are aimed at Harvard Medical School students, medical residents in training**

**Kristen Young**, Research Assistant

at Beth Israel Deaconess Medical Center, clinical and research fellows and visiting scientists. Research activities, focusing on basic mechanisms of allergies and inflammation, have coordinated with international centers and provided research training opportunities for national and international research fellows.

## 2009–2010 HIGHLIGHTS

The Allergy and Inflammation Division provides inpatient consultation services at Beth Israel Deaconess Medical Center as well as outpatient allergy and immunology services in its Brookline and Lexington practice sites. Clinicians have expertise with diverse allergic or immunological issues, including the evaluation and management of drug allergy, drug desensitization, cutaneous eruptions, anaphylaxis, hyper-eosinophilic disorders and primary immunodeficiency evaluations. Dr. Anna Kovalszki has expanded her program for evaluating immunodeficiency disorders. The Division has developed an

interdisciplinary program, led by Dr. Javed Sheikh, for the evaluation and management of systemic mast cell and eosinophilic disorders, which is a coordinated effort among Allergy and Inflammation, Hematology-Oncology, Dermatology, Gastroenterology, Clinical Pathology and the Division of Experimental Pathology.

The Allergy and Inflammation Division at BIDMC has one of the top three programs in the United States with both a clinical and research focus on human eosinophilic diseases. Both the clinical/academic and research programs are recognized nationally and internationally for their expertise in eosinophilic diseases. Research activities continue to garner substantial NIH funding support with multiple R01 grants, including one to Dr. Peter Weller that was recognized with a MERIT Award. Research presentations for Division members garnered awards and recognition at the International Eosinophil Society meeting in Belgium.

The Allergy and Inflammation Division provides distinct expertise in complex allergic and immunologic diseases, including varied eosinophilic diseases and immunodeficiency disorders. In collaboration with the Rheumatology and research Immunology Divisions, the Allergy and Inflammation Division is developing a coordinated Clinical Immunology Referral service.

## SELECTED PUBLICATIONS


Neves JS, Radke AL, Weller PF. Cysteinyl leukotrienes act via granule membrane-expressed receptors to elicit secretion from within human eosinophil granules. *J Allergy Clin Immunol* 2010; 125:477-82.

Spencer LA, Weller PF. Eosinophils and Th2 immunity: contemporary insights. *Immunol Cell Biol* 2010; 88:250-6.

Akuthota P, Wang H, Weller PF. Eosinophils as antigen-presenting cells in allergic upper airway disease. *Curr Opin Allergy Clin Immunol* 2010; 10:14-19.

Ogbogu PU, Bochner BS, Butterfield JH, Gleich GJ, Huss-Marp J, Kahn JE, Leiferman KM, Nutman TB, Pfab F, Ring J, Rothenberg ME, Roufosse F, Sajous MH, Sheikh J, Simon D, Simon H-U, Stein ML, Wardlaw A, Weller PF, Klion AD. Hypereosinophilic syndromes: a multicenter, retrospective analysis of clinical characteristics and response to therapy. *J Allergy Clin Immunol* 2009; 124:1319-25.

Neves JS, Weller PF. Functional extracellular eosinophil granules: novel implications in eosinophil immunobiology. *Curr Opin Immunol* 2009; 21:694-9.

Melo RCN, Spencer LA, Perez SAC, Neves JS, Bafford S, Morgan ES, Dvorak AM, Weller PF. Vesicle-mediated secretion of human eosinophil granule-derived major basic protein (MBP). *Lab Invest* 2009; 89:769-81.

Najib U, Bajwa ZH, Ostro MG, Sheikh J. A retrospective review of clinical presentation, thyroid autoimmunity, laboratory characteristics, and therapies used in patients with chronic idiopathic urticaria. *Ann Allergy Asthma Immunol* 2009; 103:496-501.

Sheikh J, Weller PF. Advances in diagnosis and treatment of eosinophilia. *Curr Opin Hematol* 2009; 16:3-8.


## FACULTY

**Praveen Akuthota, MD**
**Ionita Ghiran, MD**
**Zhuang Jin, PhD**
**Anna Kovalszki, MD**
**Rosanna Melo, PhD**
**Josianne Neves, PhD**
**Anne Nicholson-Weller, MD**
**Rivtal Shamri, PhD**
**Javed Sheikh, MD**
**Lisa A. Spencer, PhD**
**Shigeharu Ueki, MD, PhD**
**Haibin Wang, MD, PhD**
**Peter F. Weller, MD**

## RESEARCH FUNDING

| | Direct | Indirect |
|---|---|---|
| **Federal** | **1,262,031** | **839,861** |
| **Non Federal** | **212,361** | **10,019** |

## HONORS AND AWARDS

**Peter F. Weller, MD**, was recognized by Best Doctors in America 2010 and was elected to serve on the Council of the Collegium Internationale Allergologicum – an elective group of ~300 international experts in Allergy and Immunology. Dr. Weller also received an NIH MERIT award by NIAID for his longstanding and competitively renewed R01 "Human eosinophils: Mechanisms of functioning," one of his three NIH R01 grants.

**Javed Sheikh, MD**, was recognized in 2010 by Best Doctors in Boston – *Boston Magazine,* Best Doctors in America – Best Doctors, Inc, and America's Top Doctors – Castle Connolly Medical Ltd.

**Lisa Spencer, PhD**, received a new five year NIH R01 grant, entitled "Notch signaling-mediated functions of airway eosinophils in lung diseases," and an American Heart Association grant entitled "Human eosinophils as inducers of endomyocardial fibrosis."

**Josianne Neves, PhD**, and **Haibin Wang, MD, PhD**, received Young Investigator Awards for presentations at the International Eosinophil Society meeting in Belgium.