

## **John J. Costa, MD**

### **Additional Information**

**Place of Birth:** Boston, MA

#### **Education:**

<b>Year</b>	<b>Degree</b>	<b>Institution</b>
1979	A.B.	Biology ( <i>cum laude</i> ), Harvard College, Cambridge, MA
1984	M.D.	Mount Sinai School of Medicine, New York, NY

#### **Postdoctoral Training:**

1984-1987	Internship/Residency in Internal Medicine, University Hospital, Boston University Medical Center, Boston, MA
1987-1990	Medical Staff Fellow, Allergy and Immunology, Laboratory of Clinical Investigation, NIAID, NIH, Bethesda, MD
1990-1991	Senior Staff Fellow, Mast Cell Section, Laboratory of Clinical Investigation, NIAID, NIH, Bethesda, MD

#### **Licensure and Certification:**

1984	National Board of Medical Examiners
1986-present	Massachusetts License Registration
1987	American Board of Internal Medicine
1989	American Board of Allergy and Immunology
1999	American Board of Allergy and Immunology – Recertification
2008	American Board of Allergy and Immunology – Recertification

#### **Academic Appointments:**

1991-1997	Instructor in Pathology, Harvard Medical School, Boston, MA
1997-2000	Instructor in Medicine, Harvard Medical School, Boston, MA
2000-present	Assistant Clinical Professor of Medicine, Harvard Medical School, Boston, MA

#### **Hospital or Affiliated Institution Appointments:**

1991-1997	Instructor in Pathology, Beth Israel Hospital, Boston, MA
1992-1998	Allergic/Immunologic Diseases Consultant, Department of Medicine, Dana-Farber Cancer Institute, Boston, MA
1993-1997	Associate in Medicine, Beth Israel Hospital, Boston, MA
1993-Present	Courtesy Staff, Department of Medicine, Jordan Hospital, Plymouth, MA

1993-Present Courtesy Staff, Department of Medicine, Tobey Hospital, Wareham, MA  
 1997-2000 Research Associate, Department of Pathology, Beth Israel Deaconess Medical Center, Boston, MA  
 1997-2000 Associate in Medicine, Allergy and Inflammation, Beth Israel Deaconess Medical Center, Boston, MA  
 2000-Present Associate Physician, Division of Rheumatology, Immunology, and Allergy, Brigham and Women's Hospital, Boston, MA  
 2000-Present Medical Director, Allergy and Clinical Immunology Practice, Brigham and Women's Hospital, Boston, MA

**Memberships, Offices and Committee Assignments in Professional Societies:**

1989-Present American Academy of Allergy, Asthma and Immunology  
 1993-1997 Audio-visual and Media Committee (1996-97 Chair), American Academy of Allergy, Asthma and Immunology  
 1994-Present Fellow, American Academy of Allergy, Asthma and Immunology  
 1995-2003 Public Education Committee, American Academy of Allergy, Asthma and Immunology  
 1995-2003 Abstract Selection Committee, Mechanisms of Allergy Interest Section, American Academy of Allergy, Asthma and Immunology  
 1998-Present New England Allergy Society  
 1997-1998 Secretary, Mechanisms of Allergy Interest Section, American Academy of Allergy, Asthma and Immunology  
 1998-2001 Vice Chair, Mechanisms of Allergy Interest Section, American Academy of Allergy, Asthma and Immunology  
 1999-2003 Post-graduate Education Committee, American Academy of Allergy, Asthma and Immunology  
 1999-Present Massachusetts Allergy Society  
 2000-Present Media Relations Committee, American Academy of Allergy, Asthma and Immunology  
 2001-2003 Chair, Mechanisms of Allergy Interest Section, American Academy of Allergy, Asthma and Immunology  
 2003-2005 Secretary, Massachusetts Allergy Society  
 2003-2006 Board of Directors, Allergy and Asthma Foundation of America, New England Chapter, Boston, MA  
 2005-2007 Treasurer, Massachusetts Allergy Society

**Awards and Honors:**

1990 First Place, Insights in Allergy essay contest for postdoctoral Fellows in allergy  
 1991 Scholar in Allergy Award, sponsored by the American Academy of Allergy, Asthma and Immunology and Marion Merrell Dow.  
 2005-2008 Named by Boston-based Best Doctors, Inc., Best Doctors in America

## Teaching:

Dr. Costa has been an invited speaker at the annual international meetings of the American Academy of Allergy, Asthma and Immunology for a variety of workshops and seminars, as well as the plenary session. He has been a lecturer for Harvard Medical School courses as well as the HMS-sponsored post-graduate educational "Update in Internal Medicine" and "Office-Based Practice of Primary Care" courses. He has given the Medical Grand Rounds lecture at a number of Boston area hospitals. He is the medical advisor for the local "Shoreside" group of the Allergy and Asthma Foundation of America.

## Bibliography:

### Original Articles

1. Costa JJ, Michel JL, Rappuoli R, Murphy JR. Restriction map of corynebacteriophages  $\beta$ c and  $\beta$ v and physical localization of the diphtheria *tox* operon. *J Bacteriol* 1981;148:124-30.
2. Dastych J, Costa JJ, Thompson HL, Metcalfe DD. Mast cell adhesion to fibronectin. *Immunology* 1991;73:478-84.
3. Costa JJ, Keffer JM, Goff JP, Metcalfe DD. Aphidicolin-induced proliferative arrest of murine mast cells: morphologic and biochemical changes are not accompanied by alterations in cytokine gene induction. *Immunology* 1992;76:413-421.
4. Costa JJ, Matossian K, Resnick MB, Beil WJ, Wong DTW, Gordon JR, Dvorak AM, Weller PF, Galli SJ. Human eosinophils can express the cytokines TNF- $\alpha$  and MIP-1 $\alpha$ . *J Clin Invest* 1993;91:2673-2684.
5. Aurora N, Min K-U, Costa JJ, Rhim JS, Metcalfe DD. Immortalization of mouse bone marrow derived mast cells with Ad12-SV-40 virus. *Intl Arch Allergy Appl Immunol* 1993;100:319-327.
6. Casale TB, Costa JJ, Galli SJ. TNF- $\alpha$  is important in human lung allergic reactions. *Am J Respir Cell Mol Biol*, 1996;15:35-44.
7. Costa JJ, Demetri GD, Harrist TJ, Dvorak AM, Hayes DF, Merica EA, Menehaca DM, Gringeri AJ, Schwartz LB, Galli SJ. Recombinant human stem cell factor (*c-kit* ligand) promotes human mast cell and melanocyte hyperplasia and functional activation *in vivo*. *J Exp Med* 1996;183:2681-2686.
8. Moskowitz CH, Stiff P, Gordon MS, McNiece I, Ho A, Costa JJ, Broun ER, Bayer RA, Wyres M, Hill J, Jelaca-Maxwell K, Nichols CR, Brown SL, Nimer SD, Gabrilove J. Recombinant methionyl human stem cell factor (r-metHuSCF) and Filgrastim for PBPC mobilization and transplantation in non-Hodgkin's Lymphoma patients — Results of a phase I/II trial. *Blood* 1997;89:3136-47.
9. Dvorak AM, Costa JJ, Morgan ES, Monahan-Early RA, Galli SJ. Diamine oxidase-gold ultrastructural localization of histamine in human skin biopsies containing mast cells stimulated to granulate *in vivo* by exposure to recombinant human stem cell factor. *Blood* 1997;90:2893-2900.

10. Yano K, Mabuchi M, de Mora F, Lantz CS, Butterfield JH, Costa JJ, Galli SJ. Production of macrophage inflammatory protein- $\alpha$  by human mast cells: Increased anti-Age-dependent secretion after Age-dependent enhancement of mast cell Age-binding ability. *Lab Invest* 1997;77:185-93.
11. Dvorak AM, Costa JJ, Monahan-Early RA, Fox P, Galli SJ. Ultrastructural analysis of human skin biopsy specimens from patients receiving recombinant human stem cell factor: subcutaneous injection of rSCF induces dermal mast cell deregulation and granulocyte recruitment at the injection site. *J Allergy Clin Immunol* 1998; 101:793-806.
12. Yamaguchi M, Sajama K, Yano K, Lantz CS, Noben-Trauth N, Ra C, Costa JJ, Galli SJ. IgE enhances Fc epsilon receptor I expression and IgE-dependent release of histamine and lipid mediators from human umbilical cord blood-derived mast cells: synergistic effect of IL-4 and IgE on human mast cell Fc epsilon receptor I expression and mediator release. *J Immunol* 1999;162:5455-65.

### **Reviews and Educationally Relevant Publications**

1. Costa JJ. Mast cell cytokines: New insights into the pathogenesis of allergic diseases. *Insights in Allergy* 1990; 5:1-8.
2. Costa JJ, Burd PR, Metcalfe DD. Mast cell cytokines. In: Kaliner MA, Metcalfe DD, eds. *The Role of the Mast Cell in Health and Disease*. New York: Marcel Dekker, 1992: 443-6.
3. Metcalfe DD, Costa JJ, Burd PR. Mast cells and basophils. In: Gallin JI, et al., eds. *Inflammation: Basic Principles and Clinical Correlates - 2nd edition*. New York: Raven Press, 1992: 709-725.
4. Galli SJ, Gordon JR, Wershil BK, Costa JJ, Elovic A, Wong DTW, Weller PF. Mast cell and eosinophil cytokines in allergy and inflammation. In: Gleich GJ, Kay AB, eds. *Eosinophils: Immunological and Clinical Aspects*. New York, Marcel Dekker, 1994: 255-280.
5. Galli SJ, Wershil BK, Costa JJ, Tsai M. For better or for worse: Does stem cell factor importantly regulate mast cell function in pulmonary physiology and pathology. *Am J Respir Cell Mol Biol* 1994; 11:644-645.
6. Galli SJ, Tsai M, Wershil BK, Tam S-Y, Costa JJ. The regulation of mouse and human mast cell development, survival and function by stem cell factor, the ligand for the c-kit receptor. *Intl Archs Allergy Immunol* 1995; 107:51-53.
7. Galli SJ, Tsai M, Wershil BK, Iemura A, Ando A, Tam S-Y, Costa JJ. The effects of stem cell factor, the ligand for the c-kit receptor, on mouse and human mast cell development, survival and function. In: Kitamura Y, Yamamoto S, Galli SJ, Greaves MW, eds. *Biological and Molecular Aspects of Mast Cell and Basophil Differentiation and Function*. New York: Raven Press, 1995: 1-12.
8. Galli SJ, Costa JJ. Mast cell—leukocyte cytokine cascades in allergic inflammation. *Allergy* 1995; 50:851-862.

9. Costa JJ, Galli SJ. Mast cells and basophils. In: Rich R, editor. Principles and Practice of Clinical Immunology. St. Louis: Mosby, 1996; pp.408-430.
10. Costa JJ, Galli SJ. Basophils and mast cells: basic biology and clinical significance. In: Hadden JW, Szentivanyi A, editors. Immunopharmacology Reviews. Vol. II. New York: Plenum Press, 1996; pp.203-259.
11. Galli SJ, Costa JJ. Mast cells. In: Crystal R, West J, Weibel E, Barnes P, editors. The Lung: Scientific Foundations. New York: Raven Press 1997; pp.929-946.
12. Galli, Costa JJ. The regulation of mast cell development, survival and function in vivo by stem cell factor, the ligand for the c-kit receptor: Clinical implications. In J Ring, H Behrendt D. Vieluf, eds. Proceedings of a Joint International Symposium: New Trends in Allergy IV and Environmental Allergy and Allergotoxicology III. Berlin: Springer-Verlag 1997:151-8.
13. Costa JJ, Weller PF, Galli SJ. The cells of the allergic response: mast cells, basophils and eosinophils. In: Baker JR Jr., Solomon WR, eds. Primer in Allergic Diseases. 4th ed. JAMA 1997; 278:1815-1822.
14. Costa JJ, Church MK, Galli SJ. Mast cell cytokines in allergic inflammation. In: Holgate ST, Busse W, eds. Inflammatory Mechanisms in Asthma. New York: Marcel Dekker, Inc., 1998 : 111-28.
15. Nilsson G, Costa J, Metcalfe D. Mast cells and basophils. In: Gallin JI, et al, eds. Inflammation: basic principles and clinical correlate. 3rd ed. New York: Raven Press, 1998 (in press).
16. Costa JJ, Galli SJ, Wershil BK. Mast cells and basophils: basic biology and roles in gastrointestinal diseases. In: Frieri M, Kettlehutt B., eds. Food hypersensitivity and adverse reactions: a practical guide for diagnosis and management. New York: Marcel Dekker, 1998; 14:1-38
17. Costa JJ. The therapeutic use of hematopoietic growth factors. J Allergy Clin Immunol 1998; 101:1-6.