

Univ.-Doz. Dr. Edda Fiebiger, PhD**Firma/Institution, Abteilung**

Harvard Digestive Diseases Center
GI Cell Biology Laboratory, Enders 729
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Persönliches

geboren 1967 in Steyr, Oberösterreich

Sprachen: Englisch, Französisch, Latein,

Familie: verheiratet, 2 Kinder Ian-Barrett 2003, Tye-Christopher 2004

Hobbies: Lesen, Yoga

Ausbildung

- 15.11.2005 Habilitation for Immunology at the Medical University of Vienna
- 1992-1998 PhD, General Immunology and Immundermatology. University of Vienna, Medical School (Advisor: Prof. Georg Stingl). Degree granted 10/21/1998.
- 1991-1992 Diploma thesis, University of Vienna Medical School, Institute of Immunology (Advisors: Prof. Hannes Stockinger). Degree granted 04/08/1992 (Mag.pharm.).
- 1985-1992 Undergrad studies at the University of Vienna, Faculty of Natural Sciences. Major: Pharmacy.
- 1985 Matura in Steyr mit ausgezeichnetem Erfolg

Berufslaufbahn

- 10/2005- present Instructor in Pediatrics (junior faculty, tenure track at Children's Hospital Boston, Harvard Digestive Disease Center and Harvard Medical School)
- 2000-2005 Postdoctoral fellow, Harvard Medical School (Advisor: Prof. Hidde Ploegh)
- 1999 Postdoctoral fellow, University of Vienna, Medical School (Advisor: Prof. Dieter Maurer)
- 1997-98 Richard Wagner Apotheke, 1160 Wien
- September 1991 Undergrad Fellow at the Academy of Sciences, Prague, Czech Republic (Advisor: Prof. Vaclav Horejsi)

Aktuelles Arbeitsgebiet

Lebensmittelallergien – über ein besseres Verständnis der Immunpathologie zu neuen Interventionsstrategien

Laufende Forschungsprojekte

In den US zeigen Statistiken, dass bereits jeder vierte Haushalt sein Ess- und Kochverhalten wegen eines Mitglieds, das an Nahrungsmittelallergie oder Unverträglichkeit leidet, ändern muss. Vor allem die hohe Inzidenz von Nahrungsmittelunverträglichkeiten bei Kindern ist erschreckend. Bis jetzt liegen die Gründe dieses Phänomens im Dunkeln. Meine Arbeitsgruppe fokussiert sich zurzeit auf Studien der Immunpathologien die Lebensmittelallergien unterliegt. Wir versuchen in Zell biologischen Modellen und mit Hilfe von Mausmodellen ein besseres Verständnis über Immunreaktionen im gastrointestinalen Trakt zu bekommen. Wir hoffen über ein besseres Verständnis der Pathologie von Lebensmittelallergien zu neuen Therapie oder Präventionsstrategien zu gelangen.

Mitgliedschaften

Österreichische Gesellschaft für Allergologie und Immunologie (ÖGAI)
Österreichische Gesellschaft für Dermatologie und Venerologie (ÖGDV)
American Association of Immunologists (AAI)
Austrian scientists and scholars in North America (AsciNA)

Auszeichnungen

2006 Kraup Award for the best promotion package to Assistant Professor at all Medical Schools of Austria
2001 Landsteiner Award of the ÖGAI
2000 AESCA Award of the ÖGDV
1999 Upper Austrian Talent-Support Award for Natural Sciences
1998 Ph.D. Thesis Award of the ÖGDV
1997 HÖCHST Award of the University of Vienna

Scientific Community Services

Betreuung von Diplomanden und Dissertanten an der Harvard Medical School

Vorlesungen im Rahmen des PhD Propädeutikums der MUW.

Mitglied in zahlreichen recruitment committees an der Division

Statement „Frauen in der naturwissenschaftlich-technischen Berufen/ Forschung“

Eigentlich sollten wir 2007 keine Diskussion über dieses Thema mehr führen. Wie man aber sieht, hat die Problematik nicht an Wichtigkeit verloren. Im Gegenteil, nach wie vor zeigt die Statistik, dass je weiter nach oben in die Karrierepyramide man schaut, umso dünner die weiblichen Reihen werden. Daher sollten alle Frauen in höheren Positionen sich wo auch immer möglich für andere Frauen einsetzen. Dies würde auch die männlichen Kritiker zum Thema, dass Frauen ihre eigenen größten Feinde sind, zum Schweigen bringen. Persönlich werde ich, wenn immer geht, mich für andere Kolleginnen einsetzen.

Ausgewählte Publikationen

List of Publications

Celia R. Berkers, Martijn Verdoes, Eben Lichtman, Edda Fiebiger, Benedikt M. Kessler, Kenneth C. Anderson, Hidde L. Ploegh, Huib Ovaa, and Paul J. Galardy. In vivo activity based drug profiling: additional proteasome subunits identified as targets of the anti-tumor agent bortezomib., **Nat.Meth.**, 2005 May;2(5):357-62

Fiebiger E, Tortorella D, Jouvin MH, KinetJP, Ploegh HL. Cotranslational endoplasmic reticulum assembly of Fc{varepsilon}RI controls the formation of functional IgE-binding receptors. **J Exp Med.** 2005 Jan 17;201(2):267-77

Jaksits S, Bauer W, Kriehuber E, Zeyda M, Stulnig TM, Stingl G, Fiebiger E, Maurer D. Lipid Raft-Associated GTPase Signaling Controls Morphology and CD8+ T Cell Stimulatory Capacity of Human Dendritic Cells. **J Immunol**. 2004 Aug 1;173(3):1628-39

Kunstfeld R, Hirakawa S, Hong YK, Schacht V, Lange-Asschenfeldt B, Velasco P, Lin C, Fiebiger E, Wei X, Wu Y, Hicklin D, Bohlen P, Detmar M. Induction of cutaneous delayed-type hypersensitivity reactions in VEGF-A transgenic mice results in chronic skin inflammation associated with persistent lymphatic hyperplasia. **Blood**. 2004 Apr 20

Fiebiger E, Hirsch C, Vyas JM, Gordon E, Ploegh HL, Tortorella D. Dissection of the dislocation pathway for type I membrane proteins with a new small molecule inhibitor, eeyarestatin. **Mol Biol Cell**. 2004 Apr;15(4):1635-46.

Bertho N, Cerny J, Kim Y-E, Fiebiger E, Ploegh H, Boes M. Requirements for T-cell polarized tubulation of Class II+ compartments in dendritic cells. **J Immunol**. 2003 Dec 1;171(11):5689-96.

Winter D, Fiebiger E, Meraner P, Auer H, Brna C, Strohal R, Trautinger F, Knobler R, Fischer GF, Stingl G, Maurer D. Definition of TCR epitopes for CTL-mediated attack of cutaneous T cell lymphoma. **J Immunol**. 2003 Sep 1;171(5):2714-24

Ovaa H, Van Swieten PF, Kessler BM, Leeuwenburgh MA, Fiebiger E, Van Den Nieuwendijk AM, Galardy PJ, Van Der Marel GA, Ploegh HL, Overkleeft HS. Chemistry in Living Cells: Detection of Active Proteasomes by a Two-Step Labeling Strategy. **Angew Chem Int Ed Engl**. 2003 Aug 11;42(31):3626-3629.

Fiebiger E, Maehr R, Villadangos J, Weber E, Erickson A, Bikoff E, Ploegh HL, Lennon-Dumenil AM. Invariant chain controls the activity of extracellular cathepsin L. **J Exp Med**. 2002 Nov 4;196(9):1263-9.

Sabroe RA, Fiebiger E, Francis DM, Maurer D, Seed PT, Grattan CE, Black AK, Stingl G, Greaves MW, Barr RM. Classification of anti-FcepsilonRI and anti-IgE autoantibodies in chronic idiopathic urticaria and correlation with disease severity. **J Allergy Clin Immunol**. 2002 Sep;110(3):492-9.

Lennon-Dumenil AM, Bakker AH, Maehr R, Fiebiger E, Overkleeft HS, Roseblatt M, Ploegh HL, Lagaudriere-Gesbert C. Analysis of protease activity in live antigen-presenting cells shows regulation of the phagosomal proteolytic contents during dendritic cell activation. **J Exp Med**. 2002 Aug 19;196(4):529-40.

Fiebiger E, Story C, Ploegh HL, Tortorella D. Visualization of the ER-to-cytosol dislocation reaction of a type I membrane protein. **EMBO J**. 2002 Mar 1;21(5):1041-53.

Kessler BM, Tortorella D, Altun M, Kisselev AF, Fiebiger E, Hekking BG, Ploegh HL, Overkleeft HS. Extended peptide-based inhibitors efficiently target the proteasome and reveal overlapping specificities of the catalytic beta-subunits. **Chem Biol**. 2001 Sep;8(9):913-29.

Fiebiger E, Meraner P, Weber E, Fang IF, Stingl G, Ploegh H, Maurer D. Cytokines regulate proteolysis in major histocompatibility complex class II-dependent antigen presentation by dendritic cells. **J Exp Med**. 2001 Apr 16;193(8):881-92.

Zuberbier T, Henz BM, Fiebiger E, Maurer D, Stingl G. Anti-FcepsilonRIalpha serum autoantibodies in different subtypes of urticaria. **Allergy**. 2000 Oct;55(10):951-4.

Elbe-Burger A, Mommaas AM, Prieschl EE, Fiebiger E, Baumruker T, Stingl G. Major histocompatibility complex class II- fetal skin dendritic cells are potent accessory cells of polyclonal T-cell responses. **Immunology**. 2000 Oct;101(2):242-53.

Maurer D, Fiebiger E, Reininger B, Ebner C, Petzelbauer P, Shi GP, Chapman HA, Stingl G. Fc epsilon receptor I on dendritic cells delivers IgE-bound multivalent antigens into a cathepsin S-dependent pathway of MHC class II presentation. **J Immunol**. 1998 Sep 15;161(6):2731-9.

Fiebiger E, Hammerschmid F, Stingl G, Maurer D. Anti-Fc epsilon RI alpha autoantibodies in autoimmune-mediated disorders: Identification of a structure-function relationship. **J Clin Invest**. 1998 Jan 1;101(1):243-51.

Grabbe J, Welker P, Rosenbach T, Nurnberg W, Kruger-Krasagakes S, Artuc M, Fiebiger E, Henz BM. Release of stem cell factor from a human keratinocyte line, HaCaT, is increased in differentiating versus proliferating cells. **J Invest Dermatol**. 1996 Aug;107(2):219-24.

Gröger M, Sarmay G, Fiebiger E, Wolff K, Petzelbauer P. Dermal microvascular endothelial cells express CD32 receptors in vivo and in vitro. **J Immunol**. 1996 Feb 15;156(4):1549-56.

Fiebiger E, Maurer D, Holub H, Reininger B, Hartmann G, Woisetschläger M, Kinet JP, Stingl G. Serum IgG autoantibodies directed against the alpha chain of Fc epsilon RI: a selective marker and pathogenetic factor for a distinct subset of chronic urticaria patients? **J Clin Invest**. 1995 Dec;96(6):2606-12.

Kramer G, Steiner G, Fodinger D, Fiebiger E, Rappersberger C, Binder S, Hofbauer J, Marberger M. High expression of a CD38-like molecule in normal prostatic epithelium and its differential loss in benign and malignant disease. **J Urol**. 1995 Nov;154(5):1636-41.

Maurer D, Ebner C, Reininger B, Fiebiger E, Kraft D, Kinet JP, Stingl G. The high affinity IgE receptor (Fc epsilon RI) mediates IgE-dependent allergen presentation. **J Immunol**. 1995 Jun 15;154(12):6285-90.

Maurer D, Fiebiger E, Reininger B, Wolff-Winiski B, Jouvin MH, Kilgus O, Kinet JP, Stingl G. Expression of functional high affinity immunoglobulin E receptors (Fc epsilon RI) on monocytes of atopic individuals. **J Exp Med**. 1994 Feb 1;179(2):745-50.

Stöckl J, Majdic O, Rosenkranz A, Fiebiger E, Kniep B, Stockinger H, Knapp W. Monoclonal antibodies to the carbohydrate structure Lewis(x) stimulate the adhesive activity of leukocyte integrin CD11b/CD18 (CR3, Mac-1, alpha m beta 2) on human granulocytes. **J Leukoc Biol**. 1993 May;53(5):541-9.

Kasinerk W, Fiebiger E, Stefanova I, Baumruker T, Knapp W, Stockinger H. Human leukocyte activation antigen M6, a member of the Ig superfamily, is the species homologue of rat OX-47, mouse basigin, and chicken HT7 molecule. **J Immunol**. 1992 Aug 1;149(3):847-54.

Reviews

Bryant PW, Lennon-Dumenil AM, Fiebiger E, Lagaudriere-Gesbert C, Ploegh HL. Proteolysis and antigen presentation by MHC class II molecules. **Adv Immunol**. 2002;80:71-114.

Maurer D, Ebner C, Reininger B, Petzelbauer P, Fiebiger E, Stingl G. Mechanisms of Fc epsilon RI-IgE-facilitated allergen presentation by dendritic cells. **Adv Exp Med Biol**. 1997;417:175-8.

Fiebiger E, Stingl G, Maurer D. Anti-IgE and anti-Fc epsilon RI autoantibodies in clinical allergy. **Curr Opin Immunol**. 1996 Dec;8(6):784-9.

Book Chapters

Mechanisms of Fc ϵ RI-IgE-facilitated allergen presentation by dendritic cells. Maurer, D., Ebner C., Reininger B., Petzelbauer P., Fiebiger E., and Stingl G. 1997. In: Riccardi-Castagnoli (ed.), *Dendritic Cells in Fundamental and Clinical Immunology*, Plenum Press, New York, pp. 175

Fc γ R γ : Structure, cellular distribution, and function. Maurer, D., Fiebiger E., Reininger B., Stingl G. 1995. In: Eibl, Peter, and Wahn (eds.). Symposium in Immunology IV, Springer-Verlag Berlin, Heidelberg, pp 59.

Invited Talks and Seminars

Publish or perish: efficient writing strategies for bench scientists. Key note teaching lecture at the retreat of the PhD program of the Medical University Vienna. 05/23/2006

The role of ER quality control for the elicitation of immune responses. Department of Dermatology, Brigham&Women's Hospital, Boston, hosted by Prof. Marianne Boes, 03/30/2006

Control of surface expression of immune recognition receptors in the ER.

Center for human Genetics, Oxford University, Oxford, hosted by Prof. Elizabeth Robertson, 01/19/2004

Immunevasion: how viral proteins trick the immune system. AsciNA (Austrian scientists and scholars in North America), Boston, 06/14/2003

Visualization of the ER-to-cytosol dislocation reaction of a type I membrane protein. November 2001, AKH, DIAID, Dept. of Dermatology, hosted by Prof. Dieter Maurer 11/22/2003

MHC class II antigen presentation in human dendritic cells. Harvard Medical School, hosted by Prof. H. Ploegh, 10/15/1999

The role of Cathepsin S in the li degradation of human dendritic cells. Harvard Medical School, Dept. of Pathology, hosted by Prof. H. Ploegh, 12/8/1998

Cathepsin S - a key enzyme in allergy? Brigham and Women's Hospital, Dept. of Pulmonology, hosted by Prof. H. Chapman, 12/6/1998