

PUBLICATIONS

Publications in refereed journals

2016

1. Twaroch, T., Curin, M., Sterflinger, K., Focke-Tejkl, M., **Swoboda, I.** and Valenta, R. (2016). Specific antibodies for the detection of *Alternaria* allergens and the identification of cross-reactive antigens in other fungi. **International Archives of Allergy and Immunology**. In press.
2. Hochwallner, H., Schulmeister, U., **Swoboda, I.**, Focke-Tejkl, M., Reininger, R., Civaj, V., Campana, R., Thalhamer, J., Scheiblhofer, S., Balic, N., Horak, F., Ollert, M., Papadopoulos, N.G., Quirce, S., Szepfalusi, Z., Herz, U., van Tol, E., Spitzauer, S. and Valenta, R. (2016). Infant milk formulas differ regarding their allergenic activity and induction of T cell and cytokine responses. **Allergy**. In press.
3. Resch, Y., Blatt, K., Malkus, U., Fercher, C., **Swoboda, I.**, Focke, M., Chen, K.-W., Seiberler, S., Mittermann, I., Lupinek, C., Rodriguez-Dominguez, A., Ziegelmayer, P., Ziegelmayer, R., Keller, W., Krzyzanek, V., Valent, P., Valenta, R. and Vrtala, S. (2016). Molecular, structural and immunological characterization of Der p 18, a chitinase-like house dust mite allergen. **PLoS ONE**. In press.
4. Hemmer, W., Klug, C. and **Swoboda, I.** (2016). Update on the bird-egg syndrome and genuine poultry meat allergy. **Allergo Journal International**, 25: 68-75.

2015

5. Ferreira de Sousa Moreira, P., Gangl, K., de Assis Machado Vieira, F., Hideki Ynoue, L., Civajc, V., Linhart, B., Flicker, S., Fiebig, H., **Swoboda, I.**, Focke-Tejkl, M., Taketomi, E.A., Valenta, R. and Niederberger, V. (2015). Allergen microarray indicates Pooidae sensitization in Brazilian grass pollen allergic patients. **PLoS One**, 10(6): e0128402.
6. Douladiris, N., Linhart, B., **Swoboda, I.**, Gstoettner, A, Vassilopoulou, E, Stolz, F., Valenta, R. and Papadopoulos, N.G. (2015). In vivo allergenic activity of a hypoallergenic mutant of the major fish allergen Cyp c 1 evaluated by skin testing. **Journal of Allergy and Clinical Immunology**, 132(4): 979-981.
7. Twaroch, T., Curin, M., Valenta, R. and **Swoboda, I.** (2015). Mould allergens in respiratory allergy: from structure to therapy. **Allergy Asthma & Immunology Research**, 7(3): 205-220.
8. Zuidmeer-Jongejan, L., Huber, H., **Swoboda, I.**, Rigby, N., Versteeg, S.A., Jensen, B.M., Quaak, S., Akkerdaas, J.H., Blom, L., Asturias, J., Bindslev-Jensen, C., Bernardi, M.L., Clausen, M., Ferrara, R., Hauer, M., Heyse, J., Kopp, S., Kowalski, M.L., Lewandowska-Polak, A., Linhart, B., Maderegger, B., Maillere, B., Mari, A., Martinez, A., Mills, EN., Neubauer, A., Nicoletti, C., Papadopoulos, N.G., Portoles, A., Ranta-Panula, V., Santos-Magadan, S., Schnoor, H.J., Sigurdardottir, S.T., Stahl-Skov, P., Stavroulakis, G., Stegellner, G., Vázquez-Cortés, S., Witten, M.,

Stolz, F., Poulsen, L.K., Fernandez-Rivas, M., Valenta, R. and van Ree, R. (2015). Development of a Hypoallergenic Recombinant Parvalbumin for First-in-Man Subcutaneous Immunotherapy of Fish Allergy. **International Archives of Allergy and Immunology**, 166(1): 41-51.

- Banerjee, S., Resch, Y., Chen, K.-W., **Swoboda, I.**, Focke-Tejkl, M., Blatt, K., Novak, N., van Hage, M., Ferrara, R., Mari, A., Purohit, A., Pauli, G., Sibanda, E.N., Ndlovu, P., Thomas, W., Krzyzanek, V., Tacke, S., Malkus, U., Valent, P., Valenta, R. and Vrtala, S. (2015). Der p 11 is a marker allergen for house dust mite-associated atopic dermatitis. **Journal of Investigative Dermatology**, 135(1): 102-109.

2014

- Raith, M., Klug, C., Sesztak-Greinecker, G., Balic, N., Focke, M., Linhart, B., Hemmer, W. and **Swoboda, I.** (2014). Unusual sensitization to parvalbumins from only certain fish species. **Annals of Allergy, Asthma & Immunology**, 113(5): 571-572.
- Curin, M., Weber, M., Thalhamer, T., **Swoboda, I.**, Focke, M., Blatt, K., Valent, P., Marth, K., Garmatiuk, T., Grönlund, H., Thalhamer, J., Spitzauer, S. and Valenta, R. (2014). Hypoallergenic derivatives of Fel d 1 obtained by rational reassembly for allergy vaccination and tolerance induction. **Clinical and Experimental Allergy**, 44(6): 882-894.
- Banerjee, S., Weber, M., Blatt, K., **Swoboda, I.**, Focke-Tejkl, M., Valent, P., Valenta, R., Vrtala, S. (2014). Conversion of Der p 23, a New Major House Dust Mite Allergen, into a Hypoallergenic Vaccine. **Journal of Immunology**, 192(10): 4867-4875.
- Kuehn, A., **Swoboda, I.**, Arumugam, K., Hilger, C. and Hentges, F. (2014). Fish allergens at a glance: Variable allergenicity of parvalbumins, the major fish allergens. **Frontiers in Immunology**, 5, Article 179, 1-8.
- Hochwallner, H., Schulmeister, U., **Swoboda, I.**, Spitzauer, S. and Valenta, R. (2014). Cow's milk allergy: From allergens to new forms of diagnosis, therapy and prevention. **Methods**, 66(1): 22-33.
- Curin, M., **Swoboda, I.**, Wollmann, E., Lupinek, C., Spitzauer, S., van Hage, M. and Valenta, R. (2014). Micro-arrayed dog, cat and horse allergens show weak correlation between allergen-specific IgE and IgG responses. **Journal of Allergy and Clinical Immunology**, 133(3): 918-921.

2013

- Srinivasan, B., Focke-Tejkl, M., **Swoboda, I.**, Constantin, C., Mittermann, I., Pahr, S., Vogelsang, H., Huber, W.-D. and Valenta, R. (2013). A combined biochemical, biophysical and immunological approach towards the identification of celiac disease-specific wheat antigens. **Amino Acids**, 45(4): 889-900.
- Linhart, B., Gstoettner, A., Gamez, C., **Swoboda, I.**, Mari, A., Papadopoulos, N. and Valenta, R. (2013). Hypoallergenic allergen derivatives of Pru p 3 for immunotherapy of IgE-mediated peach allergy. **Clinical and Translational Allergy**,

3(Suppl.3): P177.

18. Klug, C., Focke, M., Hemmer, W., Wank, H. and **Swoboda, I.** (2013). Identification and characterization of meat allergens for improved diagnosis of meat allergy. **Clinical and Translational Allergy**, 3(Suppl.3): P174.
19. Gstoettner, A.C., Baranyi, U., Focke-Tejkl, M., **Swoboda, I.**, Stolz, F., Wekerle, T., Linhart, B. and Valenta, R. (2013). Antibodies induced by immunization with a hypoallergenic mutant of the major fish allergen Cyp c 1 inhibit allergic symptoms in a mouse model of fish allergy. **Clinical and Translational Allergy**, 3(Suppl.3): O22.
20. Garmatiuk, T., **Swoboda, I.**, Twardosz-Kropfmüller, A., Dall'Antonia, F., Keller, W., Singh, M.B., Bhalla, P.L., Okada, T., Toriyama, K., Weber, M., Ghannadan, M., Sperr, W.R., Blatt, K., Valent, P., Klein, B., Niederberger, V., Curin, M., Balic N., Spitzauer, S. and Valenta, R. (2013). Characterization of mutants of a highly cross-reactive calcium-binding protein from *Brassica* pollen for allergen-specific immunotherapy. **Immunobiology**, 218(9): 1155-1165.
21. **Swoboda, I.**, Balic, N., Klug, C., Focke M., Weber, M., Spitzauer, S., Neubauer, A., Quirce, S., Douladiris, N., Papadopoulos, N.G. and Valenta, R. (2013). A general strategy for the generation of hypoallergenic molecules for immunotherapy of fish allergy. **Journal of Allergy and Clinical Immunology**, 132(4): 979-981.
22. Marth, K., Breyer, I., Focke-Tejkl, M., Blatt, K., Shamji, M., Layhadi, J., Gieras, A., **Swoboda, I.**, Zafred, D., Keller, W., Valent, P., Durham, S. and Valenta, R. (2013). A non-allergenic birch pollen allergy vaccine consisting of hepatitis PreS-fused Bet v 1 peptides focuses blocking IgG towards IgE epitopes and shifts immune responses to a tolerogenic and Th1 phenotype. **Journal of Immunology**, 190(7): 3068-3078.

2012

23. Papadopoulos, N.G., Agache, I., Bavbek, S., Bilo, B.M., Braidó, F., Cardona, V., Custovic, A., Demonchy, J., Demoly, P., Eigenmann, P., Gayraud, J., Grattan, C., Heffler, E., Hellings, P.W., Jutel, M., Knol, E., Lötvall, J., Muraro, A., Poulsen, L.K., Roberts, G., Schmid-Grendelmeier, P., Skevaki, C., Triggiani, M., Van Ree, R., Werfel, T., Flood, B., Palkonen, S., Savli, R., Allegri, P., Annesi-Maesano, I., Annunziato, F., Antolin-Amerigo, D., Apfelbacher, C., Blanca, M., Bogacka, E., Bonadonna, P., Bonini, M., Boyman, O., Brockow, K., Burney, P., Buters, J., Butiene, I., Calderon, M., Cardell, L.O., Caubet, J.C., Celenk, S., Cichočka-Jarosz, E., Cingi, C., Couto, M., Dejong, N., Del Giacco, S., Douladiris, N., Fassio, F., Fauquert, J.L., Fernandez-Rivas, M.F., Ferrer, M., Flohr, C., Gardner, J., Genuneit, J., Gevaert, P., Groblewska, A., Hamelmann, E., Hoffmann, H.J., Hoffmann-Sommergruber, K., Hovhannisyan, L., Hox, V., Jahnsen, F.L., Kalayci, O., Kalpaklioglu, A.F., Kleine-Tebbe, J., Konstantinou, G., Kurowski, M., Lau, S., Lauener, R., Lauerma, A., Logan, K., Magnan, A., Makowska, J., Makrinioti, H., Mangina, P., Manole, F., Mari, A., Mazon, A., Mills, C., Mingomataj, E.C., Niggemann, B., Nilsson, G., Ollert, M., O'Mahony, L., O'Neil, S., Pala, G., Papi, A., Passalacqua, G., Perkin, M., Pfaar, O., Pitsios, C., Quirce, S., Raap, U., Raulf-Heimsoth, M., Rhyner, C., Robson-Ansley, P., Alves, R.R., Roje, Z., Rondon, C., Rudzeviciene, O., Ruëff, F., Rukhadze, M., Rumi, G., Sackesen, C., Santos, A.F., Santucci, A., Scharf, C., Schmidt-Weber, C., Schnyder, B., Schwarze, J., Senna, G., Sergejeva, S., Seys, S., Siracusa, A., Skypala, I., Sokolowska, M., Spertini, F.,

- Spiewak, R., Sprickelman, A., Sturm, G., **Swoboda, I.**, Terreehorst, I., Toskala, E., Traidl-Hoffmann, C., Venter, C., Vlieg-Boerstra, B., Whitacker, P., Worm, M., Xepapadaki, P., and Akdis, C.A. (2012). Research needs in allergy: an EAACI position paper, in collaboration with EFA. **Clinical and Translational Allergy**, 2(1): 21.
24. Chen, K.-W., Blatt, K., Thomas, W., **Swoboda, I.**, Valent, P., Valenta, R. and Vrtala, S. (2012). Hypoallergenic combination vaccines consisting of reassembled Der p 1 and Der p 2 fragments for immunotherapy of house dust mite allergy. **Journal of Allergy and Clinical Immunology**, 130(2): 435-443.
25. Twaroch, T., Focke, M., Fleischmann, K., Lupinek, C., Blatt, K., Ferrara, R., Mari, A., Ebner, C., Valent, P., Spitzauer, S., **Swoboda, I.** and Valenta, R. (2012). Carrier-bound Alt a 1 peptides without allergenic activity for vaccination against *Alternaria alternata* allergy. **Clinical and Experimental Allergy**, 42(6): 966-975.
26. Zuidmeer-Jongejan, L., Fernandez-Rivas, M., Poulsen, L.K., Neubauer, A., Asturias, J., Blom, L., Boye, J., Bindslev-Jensen, C., Clausen, M., Ferrara, R., Garosi, P., Huber, H., Jensen, B.M., Koppelman, S., Kowalski, M.L., Lewandowska-Polak, A., Linhart, B., Maillere, B., Mari, A., Martinez, A., Mills, E.C.N., Nicoletti, C., Opstelten, D.-J., Papadopoulos, N. G., Portolez, A., Rigby, N., Scala, E., Schnoor, H.J., Sigurdottir, S., Stavroulakis, G., Stolz, F., **Swoboda, I.**, Valenta, R., van den Hout, R., Versteeg, S.A., Witten, M. and van Ree, R. (2012). FAST: Towards safe and effective subcutaneous immunotherapy of persistent life-threatening food allergies. **Clinical and Translational Allergy**, 2(1): 5
27. Twaroch, T., Acralis, E., Sterflinger, K., Stöger, E., **Swoboda, I.**, and Valenta, R. (2012). Predominant localization of the major *Alternaria* allergen Alt a 1 in the cell wall of airborne spores. **Journal of Allergy and Clinical Immunology**, 129(4): 1148-1149.

2011

28. Starkl, P., Krishnamurthy, D., Szalai, K., Felix, F., Lukschal, A., Oberthuer, D., Sampson, H.A., **Swoboda, I.**, Betzel, Ch., Untersmayr, E. and Jensen-Jarolim, E. (2011). Heating affects structure, enterocyte adsorption and signalling, as well as immunogenicity of the peanut allergen Ara h 2. **The Open Allergy Journal**, 4: 24-34.
29. Resch, Y., Weghofer, M., Seiberler, S., Horak, F., Scheiblhofer, S., Linhart, B., **Swoboda, I.**, Thomas, W.R., Thalhammer, J., Valenta, R. and Vrtala, S. (2011). Molecular characterization of Der p 10: A diagnostic marker for broad sensitization in house dust mite allergy. **Clinical and Experimental Allergy**, 41(10): 1468-1477.
30. **Swoboda, I.** (2011). Fischallergie: Neue Ansätze zur Verbesserung von Diagnose und Therapie (Fish allergy: new strategies for improvement of diagnosis and treatment). **Allergologie**, 34(8): 388-397.
31. Hochwallner, H., Schulmeister, U., **Swoboda, I.**, Kundi, M., Vogelsang, H., Balic, N., Valenta, R. and Spitzauer, S. (2011). Patients suffering from non-IgE-mediated cow's milk intolerance cannot be diagnosed based on IgG-subclass or IgA responses to milk allergens. **Allergy**, 66(9): 1201-1207.

32. Valenta, R., Linhart, B., **Swoboda, I.** and Niederberger V. (2011). Recombinant allergens for allergen-specific immunotherapy: "Ten years anniversary of immunotherapy with recombinant allergens". **Allergy**, 66(6): 775-783.
33. Gadermaier, E., Staikuniene, J., Scheiblhofer, S., Thalhamer, J., Kundi, M., Westritschnig, K., **Swoboda, I.**, Flicker, S. and Valenta, R. (2011). Recombinant allergen-based monitoring of antibody responses during injection grass pollen immunotherapy and after five years of discontinuation. **European Journal of Allergy and Clinical Immunology**, 66(9): 1174-1182.
34. Twaroch, T.E., Focke, M., Civaj, V., Balic, N., Mari, A., Quirce, S., Spitzauer, S., Valenta, R. and **Swoboda, I.** (2011). Carrier-bound, non-allergenic Ole e 1 peptides for vaccination against olive pollen allergy. **Journal of Allergy and Clinical Immunology**, 128(1): 178-184.
35. Gallerano, D., Charan, S., **Swoboda, I.**, Linhart, B., Mittermann, I., Keller, W. and Valenta, R. (2011). Biophysical characterization of recombinant HIV-1 subtype C virus infectivity factor (Vif). **Amino Acids**, 40(3): 981-989.
36. van der Ventel, M.L., Nieuwenhuizen, N.E., Kirstein, F., Jeebhay, M.F., **Swoboda, I.**, Brombacher, F. and Lopata, A.L. (2011). Differential responses to natural and recombinant allergens in a murine model of fish allergy. **Molecular Immunology**, 48(4): 637-646.
37. Campana, R., Vrtala, S., Maderegger, B., Jertschin, P., Stegellner, G., **Swoboda, I.**, Focke-Tejkl, M., Blatt, K., Gieras, A., Zafred, D., Neubauer, A., Valent, P., Keller, W., Spitzauer, S. and Valenta, R. (2011). Altered IgE epitope presentation: A novel mechanism for hypoallergenic activity revealed for Bet v 1 trimer. **Molecular Immunology**, 48(4): 431-441.

2010

38. Hochwallner, H., Schulmeister, U., **Swoboda, I.**, Geller, B., Nystrand, M., Härlin, A., Thalhamer, J., Scheiblhofer, S., Niggemann, B., Quirce S., Ebner, C., Mari, A., Pauli, G., Herz, U., van Tol, E.A.F., Valenta, R. and Spitzauer, S. (2010). Microarray and allergenic activity assessment of milk allergens. **Clinical and Experimental Allergy**, 40(12): 1809-1818.
39. Campana, R., Vrtala, S., Maderegger, B., Jertschin, P., Stegellner, G., **Swoboda, I.**, Focke-Tejkl, M., Blatt, K., Gieras, A., Zafred, D., Neubauer, A., Valent, P., Keller, W., Spitzauer, S. and Valenta, R. (2010). Hypoallergenic derivatives of the major birch pollen allergen Bet v 1 obtained by rational sequence reassembly. **Journal of Allergy and Clinical Immunology**, 126(5): 1024-1031.
40. Curin, M., Reiningger, R., **Swoboda, I.**, Focke, M., Valenta, R. and Spitzauer S. (2010). Skin Prick Test extracts for dog allergy diagnosis show considerable variations regarding the content of major and minor allergens. **International Archives of Allergy and Immunology**, 154(3): 258-263.
41. Hochwallner, H., Schulmeister, U., **Swoboda, I.**, Civaj, V., Balic, N., Focke-Tejkl, M., Nystrand, M., Härlin, A., Thalhamer, J., Scheiblhofer, S., Keller, W., Pavkov, T., Niggemann, B., Quirce, S., Mari, A., Pauli, G., Ebner, C., Papadopoulos, N.G., Herz, U., van Tol, E.A.F., Valenta, R. and Spitzauer, S. (2010). Visualization of

clustered IgE epitopes on alpha-lactalbumin. **Journal of Allergy and Clinical Immunology**, 125(6): 1279-1285.

42. Twardosz-Kropfmüller A., Singh, M.B., Niederberger, V., Horak, F., Spitzauer, S., Kraft, D., Valenta, R. and **Swoboda, I.** (2010). Allergy diagnosis with recombinant pollen marker-allergens. **Allergy**, 65(3): 296-303.
43. Hemmer, W., Focke, M., Marzban, G., **Swoboda, I.**, Jarisch, R. and Laimer, M. (2010). Identification of Bet v 1-related allergens in fig and other *Moraceae* fruits. **Clinical and Experimental Allergy**, 40: 679-687.
44. Valenta, R., Ferreira, F., Focke, M., Linhart, B., Niederberger, V., **Swoboda, I.** and Vrtala, S. (2010). From allergen genes to allergy vaccines. **Annual Reviews of Immunology**, 28: 211-241.
45. Focke, M., **Swoboda, I.**, Marth K. and Valenta, R. (2010). Developments in allergen-specific immunotherapy: from allergen extracts to allergy vaccines bypassing allergen-specific immunoglobulin E and T cell reactivity. **Clinical and Experimental Allergy**, 40(3): 385-397.

2009

46. Schulmeister, U., Hochwallner, H., **Swoboda, I.**, Focke-Tejkl, M., Geller, B., Nystrand, M., Härlin, A., Thalhamer, J., Scheiblhofer, S., Keller, W., Niggemann, B., Quirce, S., Ebner, C., Mari, A., Pauli, G., Herz, U., Valenta, R. and Spitzauer, S. (2009). Cloning, expression and mapping of allergenic determinants of alphaS1-casein, a major cow's milk allergen. **Journal of Immunology**, 182(11), 7019-7029.

2008

47. **Swoboda, I.**, Twaroch T., Grote, M. and Valenta, R. (2008). Tree pollen allergens. **Clinical Allergy and Immunology**, 21, 87-105.
48. Sanchez, D., Palová-Jelínková, L., Felsberg, J., Šimšová, M., Pekáriková, A., Pecharová, B., **Swoboda, I.**, Mothes, T., Mulder C.J., Beneš, Z., Tlaskalová-Hogenová, H. and Tucková, L. (2008). Anti-calreticulin immunoglobulin A (IgA) antibodies in refractory coeliac disease. **Clinical and Experimental Immunology**, 153(3), 351-359.
49. Constantin, C., Quirce, S., Grote, M., Touraev, A., **Swoboda, I.**, Stoecklinger, A., Mari, A., Thalhamer, J., Heberle-Bors, E. and Valenta, R. (2008). Molecular and immunological characterization of a wheat serine proteinase-inhibitor as a novel allergen in baker's asthma. **Journal of Immunology**, 180, 7451-7460.
50. Chen, K.-W., Fuchs, G., Sonneck, K., Gieras, A., **Swoboda, I.**, Douladiris, N., Linhart, B., Jankovic, M., Keller, W., Papadopoulos, N., Valent, P., Valenta, R. and Vrtala S. (2008). Reduction of the *in vivo* allergenicity of Der p 2, the major house dust mite allergen, by genetic engineering. **Molecular Immunology**, 45(9), 2486-2498.
51. Westritschnig, K., Horak, F., **Swoboda, I.**, Balic, N., Spitzauer, S., Kundi, M., Fiebig, H., Suck, R., Cromwell, O. and Valenta, R. (2008). Different allergenic activity of

grass pollen allergens revealed by skin testing. **European Journal of Clinical Investigation**, 38(4), 260-267.

52. Schulmeister, U., **Swoboda, I.**, Quirce, S., de la Hoz, B., Ollert M., Pauli, G., Valenta, R. and Spitzauer, S. (2008). Sensitisation to human milk. **Clinical and Experimental Allergy**, 38(1), 60-68.

2007

53. Valenta, R., Twaroch, T. and **Swoboda I.** (2007). Component-resolved diagnosis to optimize allergen-specific immunotherapy in the Mediterranean area. **Journal of Investigational Allergology and Clinical Immunology**, 17 Suppl 1, 36-40.
54. **Swoboda, I.**, Bugajska-Schretter, A., Linhart, B., Verdino, P., Keller, W., Schulmeister, U., Sperr, W.R., Valent, P., Peltre, G., Quirce, S., Douladiris, N., Papadopoulos, N.G., Valenta, R. and Spitzauer, S. (2007). A recombinant hypoallergenic parvalbumin mutant for immunotherapy of IgE-mediated fish allergy. **Journal of Immunology**, 178(10), 6290-6296.
55. Stern, D.A., Riedler, J., Nowak, D., Braun-Fahrlander, C., **Swoboda, I.**, Balic, N., Chen, K.-W., Vrtala, S., Grönlund, H., Van-Hage, M., Valenta, R., Spitzauer, S., von Mutius, E. and Vercelli, D. (2007). Exposure to a farming environment has allergen-specific protective effects on Th2-dependent isotype switching in response to common inhalants. **Journal of Allergy and Clinical Immunology**, 119, 351-358.
56. Reininger, R., Varga, E.M., Zach, M., Balic, N., Lindemeier, A.D., **Swoboda, I.**, Grönlund, H., van Hage, M., Rumpold, H., Valenta, R. and Spitzauer, S. (2007). Detection of an allergen in dog dander that cross-reacts with the major cat allergen, Fel d 1. **Clinical and Experimental Allergy**, 37(1), 116-124.

2006

57. Chiang, J.-Y., Balic, N., Hsu, S.-W., Yang, C.-Y., Ko, C.-W., Hsu, Y.-F., **Swoboda, I.** and Wang, C.-S. (2006). A pollen-specific polygalacturonase from lily is related to major grass pollen allergens. **Plant Physiology and Biochemistry**, 44(11-12), 743-751.
58. Palomares, O., **Swoboda, I.**, Villalba, M., Balic, N., Spitzauer, S., Rodríguez, R. and Valenta, R. (2006). The major allergen of olive pollen Ole e 1 is a diagnostic marker for sensitization to Oleaceae. **International Archives of Allergy and Immunology**, 141, 110-118.
59. Chen, L., Hefle, S.L., Taylor, S.L., **Swoboda, I.** and Goodman, R.E. (2006). Detecting fish parvalbumin with commercial mouse monoclonal anti-frog parvalbumin IgG. **Journal of Agricultural and Food Chemistry**, 54(15), 5577-5582.
60. Untersmayr, E., Szalai, K., Riemer, A.B., Hemmer, W., **Swoboda, I.**, Hantusch, B., Schöll, I., Spitzauer, S., Scheiner, O., Jarisch, R., Boltz-Nitulescu, G. and Jensen-Jarolim, E. (2006). Mimotopes identify conformational epitopes on parvalbumin, the major fish allergen. **Molecular Immunology**, 43, 1454-1461.

2005

61. Barnig, C., Schulmeister, U., **Swoboda, I.**, Bessot, J.C., Spitzauer, S. and Pauli, G. (2005). Allergy to cow milk proteins without accompanying allergy to sheep milk proteins in an adult. **Revue Francaise d'Allergologie et d'Immunologie Clinique**, 45, 608-611.
62. Lopata, A.L., Jeebhay, M.F., Reese G., Fernandes, J., **Swoboda, I.**, Robins, T.G. and Lehrer, S.B. (2005). Detection of fish antigens aerosolized during fish processing using newly developed immunoassays. **International Archives of Allergy and Immunology**, 138, 21-28.
63. Aichberger, K.J., Mittermann, I., Reininger R., Seiberler, S., **Swoboda, I.**, Spitzauer, S., Kopp, T., Stingl, G., Sperr, W.R., Valent, P., Repa, A., Bohle, B., Kraft, D. and Valenta, R. (2005). Hom s 4, an IgE-reactive autoantigen belonging to a new subfamily of calcium-binding proteins can induce T helper cell type 1-mediated autoreactivity. **Journal of Immunology**, 175, 1286-1294.
64. Grote, M., **Swoboda, I.**, Valenta, R. and Reichelt, R. (2005). Group 13 allergens as environmental and immunological markers for grass pollen allergy: Studies by immunogold field emission and transmission electron microscopy. **International Archives of Allergy and Immunology**, 136, 303-310.
65. Zhang, Y., Singh, M.B., **Swoboda, I.** and Bhalla P.L. (2005). Agrobacterium-mediated transformation and generation of male sterile lines of Australian canola. **Australian Journal of Agricultural Research**, 56, 353-361.

2004

66. **Swoboda, I.**, Grote, M., Verdino, P., Keller, W., Singh, M.B., de Weerd, N., Sperr, W.R., Valent, P., Reichelt, R., Suck, R., Fiebig, H., Valenta, R. and Spitzauer, S. (2004). Molecular characterization of polygalacturonases as grass pollen-specific marker allergens: Expulsion from pollen via submicronic respirable particles. **Journal of Immunology**, 172, 6490-6500.
67. Valenta, R., Ball, T., Focke, M., Linhart, B., Mothes, N., Niederberger, V., Spitzauer, S., **Swoboda, I.**, Vrtala, S., Westritschnig, K. and Kraft, D. (2004). Immunotherapy of allergic disease. **Advances in Immunology**, 82, 105-153.
68. Vrtala, S., Focke-Tejkl, M., **Swoboda, I.**, Kraft, D. and Valenta, R. (2004). Strategies for converting allergens into hypoallergenic vaccine candidates. **Methods**, 32, 313-320.

2003

69. Reininger, R., **Swoboda, I.**, Bohle, B., Hauswirth, A.W., Valent, P., Rumpold, H., Valenta, R. and Spitzauer, S. (2003). Characterization of recombinant cat albumin. **Clinical and Experimental Allergy**, 33(12), 1695-1702.
70. Untersmayr, E., Schöll, I., **Swoboda, I.**, Beil, W.J., Förster-Waldl, E., Walter, F.,

Riemer, A., Kraml, G., Kinaciyan, T., Spitzauer, S., Boltz-Nitulescu, G., Scheiner, O. and Jensen-Jarolim, E. (2003). Antacid medication inhibits digestion of dietary proteins and causes food allergy: a fish allergy model in Balb/c mice. **Journal of Allergy and Clinical Immunology**, 112, 616-623.

2002

71. **Swoboda, I.**, Bugajska-Schretter, A., Verdino, P., Keller, W., Sperr, W.R., Valent, P., Valenta, R. and Spitzauer, S. (2002). Recombinant carp parvalbumin, the major cross-reactive fish allergen: A tool for diagnosis and therapy of fish allergy. **Journal of Immunology**, 168, 4576-4584.
72. Stumvoll, S., Lidholm, J., Thunberg, R., Marknell DeWitt, A., Eibensteiner, P., **Swoboda, I.**, Bugajska-Schretter, A., Spitzauer, S., Vangelista, L., Kazemi-Shirazi, L., Sperr, W.R., Valent, P., Kraft, D. and Valenta, R. (2002). Purification, structural and immunological characterization of a cross-reactive timothy grass (*Phleum pratense*) pollen allergen, Phl p 4. **Biological Chemistry**, 383, 1383-1396.
73. Valenta, R., Vrtala, S., Focke-Tejkl, M., Twardosz, A., **Swoboda, I.**, Bugajska-Schretter, A., Spitzauer, S. and Kraft, D. (2002). Synthetic and genetically engineered allergen derivatives for specific immunotherapy of Type I allergy. **Clinical Allergy and Immunology**, 16, 495-517.
74. Hiller, R., Laffer, S., Harwanegg, C., Huber, M., Schmid, W., Twardosz, A., Becker, W.M., Blaser, K., Breiteneder, H., Chapman, M., Cramer, R., Duchene, M., Ferreira, F., Fiebig, H., Hoffmann-Sommergruber, K., King, T.P., Kleber-Janke, T., Kurup, V.P., Lehrer, S.B., Lidholm, J., Müller, U., Pini, C., Reese, R., Scheiner, O., Scheynius, A., Shen, H.D., Spitzauer, S., Suck, R., **Swoboda, I.**, Thomas, W., Tinghino, R., van Hage-Hamsten, M., Virtanen, T., Kraft, D., Müller, M.W. and Valenta, R. (2002). Microarrayed allergen molecules: Diagnostic gatekeepers for refined allergy treatment. **FASEB J.**, 16, 414-416.
75. **Swoboda, I.**, de Weerd N., Bhalla, P.L., Niederberger, V., Sperr, W.R., Valent, P., Kahlert, H., Fiebig, H., Verdino, P., Keller, W., Ebner, C., Spitzauer, S., Valenta, R. and Singh, M.B. (2002). Mutants of major ryegrass pollen allergen, Lol p 5, with retained structural fold exhibit reduced IgE binding capacity: candidates for grass pollen-specific immunotherapy. **European Journal of Immunology**, 32, 270-280.
76. **Swoboda, I.**, Bugajska-Schretter, A., Valenta, R. and Spitzauer, S. (2002). Recombinant fish parvalbumins: Candidates for diagnosis and treatment of fish allergy. **Allergy**, 57 Suppl 72, 94-96.
77. Singh, M.B., Xu, H., Bhalla, P.L., Zhang, Z., **Swoboda, I.** and Russell, S.D. (2002). Developmental expression of polyubiquitin genes and distribution of ubiquitinated proteins in generative and sperm cells. **Sexual Plant Reproduction**, 14(6), 325-329.

2001

78. **Swoboda, I.**, de Weerd N., Bhalla, P.L., Niederberger, V., Sperr, W.R., Valent, P., Kahlert, H., Fiebig, H., Verdino, P., Keller, W., Ebner, C., Spitzauer, S., Valenta, R. and Singh, M.B. (2001). Hypoallergenic forms of the ryegrass pollen allergen Lol p 5

as candidates for immunotherapy. **International Archives of Allergy and Immunology**, 124, 380-382.

79. Bhalla, P., **Swoboda, I.** and Singh, M.B. (2001). Reduction in allergenicity of grass pollen by genetic engineering. **International Archives of Allergy and Immunology**, 124, 51-54.
80. Spitzauer, S., **Swoboda, I.**, Wiry, I., Pandjaitan B., Brandejsky-Pichler, F., Rumpold, H. and Valenta, R. (2001). Mapping of the IgE-reactive portions of cat and dog albumin by gene fragmentation. **International Archives of Allergy and Immunology**, 124, 95-96.
81. **Swoboda, I.**, Bhalla, P.L., Xu, H., Zhang, Y., Mittermann, I., Valenta R. and Singh, M.B. (2001). Identification of *prnp 1*, a tobacco profilin gene activated in tip-growing cells. **Plant Molecular Biology**, 46(5), 531-538.

2000

82. Pandjaitan, B., **Swoboda, I.**, Brandejsky-Pichler, F., Rumpold, H., Valenta, R. and Spitzauer, S. (2000). *Escherichia coli* expression of, *Can d 3*, a highly cross-reactive animal allergen. **Journal of Allergy and Clinical Immunology**, 105(2 Pt 1), 279-285.

1999

83. Bhalla, P.L., **Swoboda, I.** and Singh, M.B. (1999). Antisense-mediated silencing of a gene encoding a major ryegrass pollen allergen. **Proceedings of the National Academy of Science, USA**, 96(20), 11676-11680.
84. Xu, H., Goulding, N., Zhang Y., **Swoboda I.**, Singh M.B. and Bhalla P.L. (1999). Promoter region of *Ory s 1*, the major rice pollen allergen gene. **Sexual Plant Reproduction**, 12 (2), 125-126.
85. Xu, H., **Swoboda, I.**, Bhalla, P.L. and Singh, M.B. (1999). Male gametic cell-specific gene expression in flowering plants. **Proceedings of the National Academy of Science, USA**, 96, 2554-2558.
86. Xu, H., **Swoboda, I.**, Bhalla, P. L. and Singh, M.B. (1999). Male gametic cell-specific expression of H2A and H3 histone genes. **Plant Molecular Biology**, 39 (3), 607-614.

1998

87. Okada, T., **Swoboda, I.**, Toriyama, K. and Singh, M.B. (1998). Engineering of hypoallergenic mutants of the *Brassica* pollen allergen, *Brar r I*, for immunotherapy. **FEBS Letters**, 434, 255-260.
88. Xu, H., **Swoboda, I.**, Bhalla, P. L., Sijbers, M. A., Zhao, C., Ong, E.-K., Hoeijmakers, J. H. J. and Singh, M. B. (1998). Plant homologue of human nucleotide excision

repair gene *ERCC1* points to conservation of DNA repair mechanisms. **Plant Journal**, 13 (6), 823-829.

1997

89. **Swoboda, I.** and Bhalla, B. L. (1997). RAPD analysis of genetic variation in the Australian fan flower, *Scaevola*. **Genome**, 40, 600-606.
90. Smith, P. M., Xu, H., **Swoboda, I.** and Singh, M. (1997). Identification of a Ca⁺⁺ binding protein as a new grass pollen allergen: IgE cross-reactivity with oilseed rape pollen allergen Bra r 1. **International Archives of Allergy and Applied Immunology**, 114, 265-271.

1996

91. Breitenbach, M., Ferreira, F., Jilek, A., **Swoboda, I.**, Ebner, C., Hoffmann-Sommergruber, K., Briza, P., Scheiner, O. and Kraft, D. (1996). Biological and immunological importance of Bet v 1 isoforms. **Advances in Experimental and Medical Biology**, 409, 117-126.
92. Boegre, L., Jonak, C., Mink, M., Meskiene, I., Traas, J., Dang, T. C. H., **Swoboda, I.**, Plank, C., Wagner, E., Heberle-Bors, E. and Hirt, H. (1996). Developmental and cell cycle regulation of alfalfa nucMs1, a plant homolog of the yeast Nsr1 and mammalian nucleolin. **The Plant Cell**, 8, 417-428.
93. **Swoboda, I.**, Hoffmann-Sommergruber, K., O'Riordain, G., Scheiner, O., Heberle-Bors, E. and Vicente, O. (1996). Bet v 1 proteins, the major birch pollen allergens and members of a family of conserved pathogenesis-related proteins, show ribonuclease activity in vitro. **Physiologia Plantarum**, 96, 433-438.

1995

94. **Swoboda, I.**, Jilek, A., Ferreira, F., Hoffmann-Sommergruber, K., Scheiner, O., Kraft, D., Breiteneder, H., Pittenauer, E., Schmid, E., Vicente, O., Heberle-Bors, E., Ahorn, H. and Breitenbach, M. (1995). Isoforms of Bet v 1, the major birch pollen allergen, analysed by liquid chromatography / mass spectrometry and cDNA cloning. **Journal of Biological Chemistry**, 270, 2607-2613.
95. **Swoboda, I.**, Dang, T. C. H., Heberle-Bors, E. and Vicente, O. (1995). Expression of Bet v 1, the major birch pollen allergen, during anther development: an in situ hybridisation study. **Protoplasma**, 187, 103-110.
96. Mittermann, I., **Swoboda, I.**, Pierson, E., Eller, N., Kraft, D., Valenta, R. and Heberle-Bors, E. (1995). Molecular cloning and characterization of profilin from tobacco (*Nicotiana tabacum*); increased profilin expression during pollen maturation. **Plant Molecular Biology**, 27, 137-146.
97. Dahl, M., Meskiene, I., Boegre, L., Dang, T. C., H., **Swoboda, I.**, Hubmann, R., Hirt, H. and Heberle-Bors, E. (1995). The D-type alfalfa cyclin gene cycMs4

complements G1 cyclin-deficient yeast and is induced in the G1 phase of the cell cycle. **The Plant Cell**, 7, 1847-1857.

98. Meskiene, I., Boegre, L., Dahl, M., Pirck, M., Dang, T. C. H., **Swoboda, I.**, Heberle-Bors, E., Ammerer, G. and Hirt, H. (1995). *cycMs3*, a novel B-type alfalfa cyclin gene, is induced in the G0 to G1 transition of the cell cycle. **The Plant Cell**, 7, 759-771.
99. Grote, M., **Swoboda, I.**, Meagher, R. B. and Valenta, R. (1995). Localisation of profilin- and actin-like immunoreactivity in *in vitro* germinated tobacco pollen tubes by electron microscopy after special water-free fixation techniques. **Sexual Plant Reproduction**, 8, 180-186.
100. **Swoboda, I.**, Scheiner, O., Heberle-Bors, E. and Vicente, O. (1995). cDNA cloning and characterisation of three birch genes, members of the Bet v 1 gene family of pollen allergens, that encode pathogenesis-related proteins. **Plant Cell and Environment**, 18, 865-874.

1994

101. **Swoboda, I.**, Scheiner, O., Kraft, D., Breitenbach, M., Heberle-Bors, E. and Vicente, O. (1994). A birch gene family encoding pollen allergens and pathogenesis-related proteins. **Biochimica et Biophysica Acta**, 1219, 457-464.

1993

102. Valenta, R., Ferreira, F., Grote, M., **Swoboda, I.**, Vrtala, S., Duchene, M., Deviller, P., Meagher, R. B., McKinney, E., Heberle-Bors, E., Kraft, D. and Scheiner, O. (1993). Identification of profilin as an actin-binding protein in higher plants. **Journal of Biological Chemistry**, 268 (30), 22777-22781.

1992

103. Pettenburger, K., Tejkl, M., Valenta, R., Hoffmann-Sommergruber, K., **Swoboda, I.**, Heberle-Bors, E., Breitenbach, M., Rumpold, H., Kraft, D. and Scheiner, O. (1992). Distribution of allergens and allergen-coding mRNAs in various tissues of white birch. **Molecular Immunology**, 29 (11), 1401-1406.

Publications in non-refereed journals

1. Kühn, A., Radauer, C., **Swoboda, I.** and Kleine-Tebbe J. (2012). Fischallergie: Parvalbumine und andere Allergene. **Allergo Journal**, 21 (1), 2-4.
2. **Swoboda, I.** (2011). Diagnose und Therapie von Fischallergien – Fortschritte durch rekombinante DNA-Technologie. **JATROS, Dermatologie & Plastische Chirurgie**, 1, 31-34.
3. **Swoboda, I.**, Bugajska-Schretter, A., Linhart, B., Verdino, P., Keller, W., Schulmeister, U., Sperr, W.R., Valent, P., Peltre, G., Quirce, S., Douladiris, N.,

Papadopoulos, N.G., Valenta, R. and Spitzauer, S. (2009). Entwicklung einer hypoallergenen Mutante des Fischhauptallergens zur Immuntherapie von Fischallergien. **Lebendige Wissenschaft, Spitzenforschung in der Dermatologie und Allergologie**, 58-64.

Book chapters

1. Kühn, A., Radauer, C., **Swoboda, I.** and Kleine-Tebbe, J. (2015). Extrakt-basierte und molekulare Diagnostik bei Fischallergie. In Molekulare Allergiediagnostik. Kleine-Tebbe, J. and Jakob, T. (eds) Springer-Verlag GmbH, Berlin, Heidelberg, Germany, pp 291-302.
2. **Swoboda, I.** and Kühn, A. (2015). Fischallergie – neue Ansätze zur Verbesserung von Diagnose und Therapie. In Allergien durch tierische Lebewesen. Stiller D (ed) Dustri-Verlag Dr. Karl Feistle, Oberhaching, Germany, pp 17-32.
3. Marth, K., Garmatiuk, T., **Swoboda, I.** and Valenta, R. (2013). Tree Pollen Allergens. In Allergens and Allergen Immunotherapy: Subcutaneous, Sublingual and Oral. Lockey, R.F. and Ledford, D.K. (eds) Informa Healthcare, New York, pp 113-132.
4. Bohle, B., **Swoboda, I.**, Spitzauer, S., Breiteneder, H., Hoffmann-Sommergruber, K., Scheiner, O., Ebner, C., Kraft, D. and Valenta, R. (2003). Food antigens: Structure and function. In Food Allergy: Adverse reactions to Foods and Food Additives. Metcalfe, D.D., Sampson, H.A. and Simon, R.A. (eds) Blackwell Publishing, Malden, MA, USA pp 38-50.
5. Valenta, R., Twardosz, A., **Swoboda, I.**, Hayek, B., Spitzauer, S. and Kraft, D. (2000). Calcium-binding proteins in Type I allergy: Elicitors and vaccines. In Calcium: The Molecular Basis of Calcium Action in Biology and Medicine. Pochet, R., Donato, R., Haiech, J., Heizmann, C. and Gerke, V. (eds) Kluwer Academic Publishers, The Netherlands pp 365-377.
6. Valenta, R., **Swoboda, I.**, Grote, M., Vrtala, S., Ferreira, F., Duchene, M., Heberle-Bors, E., Kraft, D., Scheiner, O. and Valenta, R. (1996). Profilin: a novel pan-allergen and actin-binding protein in plants. In Pollen biotechnology: genes, allergens and development. Mohapatra, S. S (ed) Chapman and Hall pp 269-278.
7. **Swoboda, I.**, Ferreira, F., Vrtala, S., Duchene, M., Deviller, P., Meagher, R.. B., Heberle-Bors, E. and Scheiner, O. (1993). Occurrence and properties of profilins in plants. In Molecular Biology and Immunology of Allergens. Kraft, D. and Schon, A. (eds) CRC Press Inc, Boca Raton, FL, USA pp 169-172.
8. Jilek, A., **Swoboda, I.**, Breiteneder, H., Fogy, I., Ferreira, F., Schmid, E., Heberle-Bors, E., Scheiner, O., Rumpold, H., Kraft, D., Koller, H. T. and Breitenbach, M. (1993). Biological functions, isoforms, and environmental control in the Bet v 1 gene family. In Molecular Biology and Immunology of Allergens. Kraft, D. and Schon, A. (eds) CRC Press Inc, Boca Raton, FL, USA pp 39-45.