

## **CURRICULUM VITAE**

### **BETUL AYSE SIN, MD**

**CURRENT APPOINTMENT:** Professor of Medicine  
Chief of the Division of Immunology and Allergic  
Diseases, School of Medicine, Ankara University,  
Turkey

#### **PERSONAL DATA:**

Office Address: University of Ankara, Faculty of Medicine, Department of Pulmonary  
Diseases, Chief of the Division of Immunology and Allergic Diseases,  
06100 Dikimevi-Ankara, Turkey

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Date of Birth: May 29, 1959

Place of Birth: Bandırma- Turkey

Marital Status: Single

#### **EDUCATION AND TRAINING:**

M.D. from 1977-1983 Ankara University, School of Medicine, Ankara- Turkey

1983-1985 General Practitioner at Community Health Center  
(obligatory service)

Residency  
from 1985-1990 Ankara University, Faculty of Medicine, Department of  
Pulmonary Diseases, Ankara- Turkey

1990-(April-June) Observer in clinical and laboratory practice. Department of  
Allergy and Clinical Immunology, University of  
La' Sapienza, Rome, Italy (Preceptor: Roberto Paganelli, M.D.)

Research and Clinical Fellow  
from 1991-1993 Ankara University, Faculty of Medicine, Division of Allergic  
Diseases, Ankara- Turkey

1993-1996 Instructor in Medicine, Division of Allergic Diseases, Faculty of  
Medicine, University of Ankara, Turkey

1996- 2002 Associate Professor of Medicine, Division of Allergic Diseases,  
Faculty of Medicine, University of Ankara, Turkey

2003- present Professor of Medicine, Division of Immunology and Allergic Diseases, Faculty of Medicine, University of Ankara, Turkey

Visiting Scientist from 2000-2001 (1 year, 1 month) Johns Hopkins University, Asthma & Allergy Center  
Division of Clinical Immunology,  
Department of Medicine  
Baltimore, Maryland USA  
Preceptor: Alkis Togias, M.D. (Mechanisms of relation between allergic rhinitis and asthma using nasal allergen provocation and sputum induction).

October-December 2002 (3 months) Swiss Institute of Allergy and Asthma Research  
September 1-15, 2010 (SIAF), Davos, Switzerland  
Preceptor: Akdis CA, M.D.( The investigation of cross reactivity between snake venom antigens, bovine pancreas and *Apis mellifera* phospholipase A<sub>2</sub>, T cell and antibody responses in bee venom allergy).

2012- Certification of Immunology sub-specialty

#### **PROFESSIONAL ACTIVITIES:**

1989- present Member of the Turkish Society of Allergy & Clinical Immunology  
1988- present Member of the Turkish Association of Tuberculosis and Thorax  
1994- present Member of the European Academy of Allergy and Clinical Immunology  
2001- present Member of the American Academy of Allergy, Asthma & Immunology  
2009-present International Fellow of the American Academy of Allergy, Asthma & Immunology  
2013-2017 European Academy of Allergy and Clinical Immunology (EAACI), Insect venom hypersensitivity Interest Group Member

#### **AREAS OF EXPERTISE**

My personal interests are the mechanisms of interaction between rhinitis and asthma, allergen specific immunotherapy, insect venom allergy.

#### **EDITORIAL ACTIVITIES:**

Active in peer-review for international journals. (ALLERGY, The Journal of Immunology & Allergy, Journal of Asthma, Annals of Thoracic Medicine, Respiratory Medicine, Journal of Asthma, Drugs & Aging, Southern Medical Journal, Case Reports in Allergy, etc)

## **AWARDS**

- 1994 Poster presentation award, VIth National Allergy and Clinical Immunology Congress
- 1999 Poster presentation award, XVth Meeting of the Turkish Association of Respiratory Research
- 2000 Poster presentation award. IXth. National Allergy and Clinical Immunology Congress
- 2002 Poster presentation award. Xth. National Allergy and Clinical Immunology Congress
- 2010 Poster presentation award. XVIIth. National Allergy and Clinical Immunology Congress
- 2011 Poster presentation award. Symposium on Management of Allergic Diseases and Clinical Immunology, 2011
- 2013 Oral Abstract Presentation award, XX. National Allergy and Clinical Immunology Congress
- 2014 Oral Abstract Presentation award, XX. National Allergy and Clinical Immunology Congress
- 2016 Oral Abstract Presentation award, XXIII. National Allergy and Clinical Immunology Congress
- 2017 EAACI Congress, Helsinki/Finland (Poster Discussion award)

## **TEACHING:**

Classroom Instruction in allergy and immunology of medical students and interns.

Clinical Instruction and Attending responsibilities of clinical fellows.

Advisees (Postdoctoral training in allergy).

## **RESEARCH PROJECT PARTICIPATION:**

- 1992-1995 Title: The effect of immunotherapy on natural killer (NK) cell activity, serum levels of IL-4, IFN-gamma, IgE and clinical response in patients with allergic rhinitis and asthma.  
(Turkish Scientific and Technical Research Council, TAG-1223).
- 1995-1998 Title: The investigation of prevalence of atopy and allergic diseases in Ankara, Turkey.  
(State Planning Organisation, 95 K 120240).
- 1998-2000 Title: Immunohistochemical findings in nasal polyposis and bronchial asthma.  
(Ankara University Research Foundation, 98-09-00-38).
- 2003-2006 Title: Class I and Class II HLA genotype investigation and cytokine polymorphisms in patients with bee sting allergy, bee-keepers, healthy controls, and clinical and immunological response to venom immunotherapy.  
(Ankara University Research Foundation, 2003-08-09-124).

- 2009-2011 Title: The effect of preseasonal allergoid immunotherapy on basophil specific ectoenzyme E-NPP3(CD203c) expression in patients with seasonal allergic rhinitis.  
(Turkish Scientific and Technical Research Council, TUBITAK. 109S251).
- 2010-2013 Title: Development and validation of a health-related quality of life questionnaire in Turkish patients with venom allergy. **BA Sin**, Aydın Ö, Z Mısırlıgil (Ankara Univ.), **J.N.G. Oude Elberink (Gröningen University, Dept. of Internal Medicine, Division of Immunology and Allergy, The Netherlands)**, AZ Sin (Ege Univ.), AA Gelincik (Istanbul Univ.), O Şener (Gülhane Military School of Medicine). (Multi-Center Study).
- 2013-2014 Title: Evaluation of immunological changes (CD203c basophil activation, specific IgE and total IgE synthesis) and clinical efficacy of specific immunotherapy with *Der p* house dust mite allergen in polysensitized and monosensitized patients with allergic rhinitis and/or asthma. (Ankara University Scientific Research Foundation, 12L3330001).
- 2014-2016 Title: The effect on the production of specific IgG4 blocking antibodies using *Der p* house dust mite allergen in polysensitized and monosensitized patients with allergic rhinitis and/or asthma: A controlled-study. (Ankara University Scientific Research Foundation, 13H3330008). **Clinical trial registration no: NCT01795846**

## COURSES

- Johns Hopkins University School of Medicine, “Clinical Research Course, July 2000” (Baltimore, USA).
- 16th Annual Update Frontiers in Research and Clinical Management of Asthma and Allergy at Johns Hopkins Asthma and Allergy Center, March 30 – April 1 2001.
- 1992-1993 Hacettepe University, Basic Immunology Education Programme, Ankara

## PUBLICATIONS

1. [Cytokine genes show distinct polymorphism pattern in Hymenoptera venom allergy.](#) Sin BA, Tutkak H, Birben E, Köse K, Mısırlıgil Z. Allergy. 2018 Dec 27. doi: 10.1111/all.13706. [Epub ahead of print] No abstract available.
2. [Omalizumab in the treatment of eosinophilic granulomatosis with polyangiitis \(EGPA\): single-center experience in 18 cases.](#) Celebi Sozener Z, Gorgulu B, Mungan D, Sin BA, Misirligil Z, Aydın O, Bavbek S. World Allergy Organ J. 2018 Dec 3;11(1):39. doi: 10.1186/s40413-018-0217-0. eCollection 2018.
3. [EAACI Guidelines on Allergen Immunotherapy: Hymenoptera venom allergy.](#) Sturm GJ, Varga EM, Roberts G, Mosbech H, Bilò MB, Akdis CA, Antolín-Amérigo D, Cichocka-Jarosz E, Gawlik R, Jakob T, Kosnik M, Lange J, Mingomataj E, Mitsias DI, Ollert M, Oude Elberink JNG, Pfaar O, Pitsios C, Pravettoni V, Ruëff F, Sin BA, Agache I, Angier E, Arasi S, Calderón MA, Fernandez-Rivas M, Halken S, Jutel M, Lau S, Pajno GB, van Ree R, Ryan D, Spranger O, van Wijk RG, Dhimi S, Zaman H, Sheikh A, Muraro A. Allergy. 2017 Jul 27. doi: 10.1111/all.13262. [Epub ahead of print] (Position Paper)
4. S Dhimi, H Zaman, E-M Varga, G J Sturm, A Muraro, CA Akdis, et al. Allergen immunotherapy for insect venom allergy; a systematic review and meta-analysis. Allergy 2017; 72: 342-365.
5. Zeynep Çelebi Sözen, Ömür Aydın, Yavuz Selim Demirel, Şadan Soyyiğit, Pamir Çerçi, Reşat Kendirinan, Sevim Bavbek, Gülfem Elif Çelik, Zeynep Misirligil, **Betül Ayşe Sin**, Arif Keleşoğlu, Dilşad Mungan. Does the medical diagnosis of occupational asthma coincide with the legal diagnosis? J Asthma 2017. DOI: 10.1080/02770903.2016.1277541
6. [Quality-of-life in insect venom allergy: validation of the Turkish version of the "Vespid Allergy Quality of Life Questionnaire" \(VQLQ-T\).](#) Sin BA, Öztuna D, Gelincik A, Gürlek F, Baysan A, Sin AZ, Aydın Ö, Mısırlıgil Z. Springerplus. 2016 May 10;5:583. doi: 10.1186/s40064-016-2246-x. eCollection 2016.
7. Allergen immunotherapy for insect venom allergy: protocol for a systematic review. Sangeeta Dhimi, Ulugbek Nurmatov, Eva-Maria Varga, Gunter Sturm, Antonella Muraro, Cezmi A. Akdis, Darío Antolín-Amérigo, M. Beatrice Bilò, Danijela Bokanovic, Moises A. Calderon, Ewa Cichocka-Jarosz, Joanna N. G. Oude Elberink, Radoslaw Gawlik, Thilo Jakob, Mitja Kosnik, Joanna Lange, Ervin Mingomataj, Dimitris I. Mitsias, Holger Mosbech, Oliver Pfaar, Constantinos Pitsios, Valerio Pravettoni, Graham Roberts, Franziska Ruëff, **Betül Ayşe Sin**, Aziz Sheikh. Clin Transl Allergy. 2015; 6: 6. Published online 2016 February 16. doi: 10.1186/s13601-016-0095-x

8. Immunologic alterations and efficacy of subcutaneous immunotherapy with Dermatophagoides pteronyssinus in monosensitized and polysensitized patients. Soyuyigit S, Guloglu D, İkinciogullari A, Secil D, Oztuna D, Mungan D, Misirligil Z, **Sin BA**. Ann Allergy Asthma Immunol. 2016 Mar;116(3):244-251.e2. doi: 10.1016/j.anai.2016.01.002.
9. Aydın O,Sözener ZC,Soyuyigit S, Kendirliinan R,Gencturk Z,Mısırlıgil Z,Mungan D, **Sin BA** , Demirel YS,Celik GE, Bavbek S. Omalizumab in the treatment of allergic bronchopulmonary aspergillosis: One center's experience with 14 cases. **Allergy and Asthma Proceedings 2015**:36:6; 439-500.
10. Yılmaz I,Çelik G,Aydın O,Ozdemir SK, Soyuyiğit S, Sozener Z, Ozgüclü S,Atasoy C, Düzgün N,Mungan D, **Sin B**, Demirel YS, Mısırlıgil Z.Churg Straus Syndrom; A new endotype of severe asthma ? Results of 14 Turkish patients. **Clin Respir J 2015**;9:3; 350-8 DOI:10.1111/crj.12154.
11. Soyuyiğit Ş, Sözener ZÇ, Erden A. Heper AO, Kaygusuz G, **Sin BA**. Cold urticaria: A rare manifestation of lymphoma. J Med Cases 2015; 6(1): 40-42.
12. Kepil Özdemir S,**Sin BA**,Güloğlu D, İkinciogulları A,Gençtürk Z,Mısırlıgil Z. Short-term preseasonal immunotherapy: Is early clinical efficacy related to the basophil response ? Int Arch Allergy Immunol 2014;164:237-245 DOI:10.1159/000365628
13. Z C Sözener, S Özgüçlü, Ö Aydın, A O Heper, Ş Soyuyiğit, **A B Sin**. A rare syndrome in the differential diagnosis for angioedema. J Med Cases 2014; 5(11): 579-582. (doi:http://dx.doi.org/10.14740/jmc1543w)
14. **Sin BA**, Ellis AK. Headaches connected to allergies and sinus problems. American Academy of Allergy, Asthma & Immunology Website Article. (Ekim, 2013)
15. Özdemir SK, Güloğlu D, **Sin BA**, Elhan AH, İkinciogulları A, Mısırlıgil Z. Reliability of basophil activation test using CD203c expression in diagnosis of pollen allergy. Am J Rhinol Allergy 2011 No-Dec; 25 (6): e225-31.
16. **B A Sin**, Akdis M, Zumkehr J, Bezine S, Bekpen C, Lambeau G, Akdis CA. T cell and antibody responses to phospholipase A2 from different species show distinct cross-reactivity patterns. Allergy 2011; 66: 1513-1521.
17. **Sin B**, Togias A. Pathophysiology of allergic and nonallergic rhinitis. Proc Am Thorac Soc 2011; 8: 106-114.

18. GP Karakış, **B A Sin**, H Tutkak, K Köse, Z Mısırlıgil. Genetic aspect of venom allergy: Association with HLA Class I and Class II antigens. *Ann Agric Environ Med* 2010; 17: 119-123.
19. **B A Sin**, O A Yıldız, A B Dursun, Z Mısırlıgil, Y S Demirel. Airway hyperresponsiveness: A comparative study of methacholine and exercise challenges in seasonal allergic rhinitis with or without asthma. *Journal of Asthma* 2009; 46: 486-491.
20. AB Dursun, E Dursun, **B A Sin**, Z Mısırlıgil. Clinical aspects of link between chronic sinonasal diseases and asthma. *Allergy Asthma Proc* 2006; 27: 510-515.
21. G Paşaoğlu, **BA Sin**, Z Mısırlıgil. Rush Hymenoptera venom immunotherapy is efficacious and safe. *J Investig Allergy Clin Immunol* 2006; 16 (4): 232-238.
22. AB Dursun, **BA Sin**, F Öner, Z Mısırlıgil. The safety of allergen immunotherapy (IT) in Turkey. *J Investig Allergol Clin Immunol* 2006; 16 (2): 123-128.
23. **BA Sin**, Ö Akkoca, S Saryal, F Öner, Z Mısırlıgil. Differences between asthma and COPD in the elderly. *J Investig Allergol Clin Immunol* 2006; 16 (1): 44-50.
24. D Ediger, **B A Sin**, A Heper, Y Anadolu, Z Mısırlıgil. Airway inflammation in nasal polyposis: immunopathological aspects of relation to asthma. *Clinical & Experimental Allergy* 2005; 35: 319-326.
25. Çelik G, Mungan D, Özer F, Ediger D, Bavbek S, **Sin B**, Demirel YS, Mısırlıgil Z. Clinical features and atopy profile in Turkish subjects with analgesic intolerance. *J Asthma* 2002; 39: 101-106.
26. **Betul Ayse Sin**, Ozden Inceoglu, Dilsad Mungan, Gulfem Celik, Ayse Kaplan, Zeynep Misirligil. Is it important to perform pollen skin prick tests in the season? *Ann Allergy Asthma Immunol* 2001; 86: 382-386.
27. D. Mungan, **Betul Ayse Sin**, Gulfem Celik, Ozlem U.Gurkan, Turan Acican, Zeynep Misirligil. Atopic status of an adult population with active and inactive pulmonary tuberculosis. *Allergy Asthma Proceedings* 2001; 22: 87-91.
28. S. Bavbek, G. Celik, D. Ediger, D. Mungan, **B A Sin**, YS. Demirel, Z. Misirligil. Severity and associated risk factors in adult asthma patients in Turkey. *Ann Allergy Asthma Immunol* 2000; 85: 134-9.
29. Tekin D, **Sin B A**, Mungan D, Misirligil Z, Yavuzer S. The antioxidative defense in asthma. *J Asthma* 2000; 37: 59-63.

30. Celik G, Mungan D, Bavbek S, **Sin B**, Ediger D, Demirel Y, Misirligil Z. The prevalence of allergic diseases and atopy in Ankara, Turkey: a two-step population-based epidemiological study. *J Asthma* 1999; 36: 281-90.
31. Mungan D, Celik G, **Sin B**, Bavbek S, Demirel Y, Misirligil Z. Characteristic features of cockroach hypersensitivity in Turkish asthmatic patients. *Allergy* 1998; 53: 870-3.
32. **Sin B**, Misirligil Z, Aybay C, Gurbuz L, Imir T. Effect of allergen specific immunotherapy (IT) on natural killer cell activity (NK), IgE, IFN-gamma levels and clinical response in patients with allergic rhinitis and asthma. *J Investig Allergol Clin Immunol* 1996; 6: 341-7.
33. Teksen F, Mungan D, Sayal A, Misirligil Z, Aydin A, Gurbuz L, Isimer A, Demirel YS, Acican T, **Sin B**. Serum and pleural fluid selenium, copper, zinc, and magnesium levels in malignant and nonmalignant pleural diseases. *Respiration* 1996; 63: 25-7.
34. Mungan D, Misirligil Z, **Sin B**, Kaya A, Demirel Y, Gurbuz L. Cyclosporin in steroid dependent asthma. *Allergol Immunopathol* 1995; 23: 202-6.
35. **Sin B**, Misirligil Z, Demirel YS, Gurbuz L, Bavbek S, Acican T. Increased chemotactic responses of neutrophils in intrinsic and mixed asthmatic patients. *Allergol Immunopathol* 1994; 22: 204-8.
36. Misirligil Z, Gurbuz L, **Sin B**, Doganay K, Tuccar E. Lung cancer in young patients in Turkey. *J Pak Med Assoc* 1988; 38: 38-40.
37. **B. Sin**, D. Mungan, Z. Misirligil, F. Kalpaklioglu, Y.S. demirel, L. Gurbuz. Evaluation of Phadiatop for the screening of atopy in adult Turkish population. *J Ankara Medical School* 1996; 18: 133-7.
38. **B. Sin**, C. Aybay, Z. Mısırlıgil, L. Gürbüz, T. Imir. Natural killer cell activity in allergic asthma. (Turkish) *Journal of Medical Sciences* 1995; 24: 195-200.
39. S Bavbek, Z Misirligil, A Cevik, F Gurcan, **B Sin**, L Gurbuz, YS Demirel. Psychological aspects in allergic bronchial asthma: a comparative study. *Turkish J Med Sci* 1995; 24: 309-12.
40. Y.S. Demirel, D.Mungan, T. Acıcan, **B. Sin**, F. Kalpaklıođlu, S. Bavbek, Z. Mısırlıgil, L. Gürbüz. Investigation of the bronchial hyperreactivity in patients with allergic rhinitis and/or asthma. (Turkish) *Tuberk Toraks* 1994; 42 : 37-41.
41. Y.S. Demirel, F. Kalpaklıođlu, S. Bavbek, **B. Sin**, Z. Mısırlıgil, L. Gürbüz. Metabisulfite sensitivity in bronchial asthma. (Turkish) *Tuberk Toraks* 1994; 42 : 75-81.



42. Y.S. Demirel, **B. Sin**, T. Acıcan, D.Mungan, O. Atakol, L. Gürbüz. The influence of hydration on sputum amount and viscosity in patients with COPD. (Turkish) Tuberk Toraks 1993; 41: 178-85.
43. Gurbuz L, Misirligil Z, Demirel YS, **Sin B**, Acıcan T, Mungan D. Allergy to mold extracts in adults with bronchial asthma. (Turkish) J Med Sciences 1992; 16: 541-46.
44. **Sin B**, Misirligil Z, Gurbuz L. Clinical response and specific IgE during immunotherapy with Turkish house dust antigen. (Turkish) J Medical Sciences 1990; 14: 570-5.
45. Z.Mısırligil, **B.Sin**, L. Gürbüz, Y.Demirel. Basophil degranulation test in patients with penicillin allergy. Turkish Respiration Bulletin 1989; 14: 138-42.
46. L. Gürbüz, E. Turaçlı, G. Karabıyıkoglu, K. Doganay, **B.Sin**. Effect of beta-adrenergic receptor blocker (Timolol Maleate) therapy on ventilatory functions and arterial blood gas analysis. Journal of Ankara Medical School 1987; 9:15-28.
47. Bavbek S, Aydın O, Kepil Ozdemis S, et al. Therapy with Omalizumab in patients with severe persistent allergic asthma: a real life data in Turkey. Tuberk Toraks 2010; 58: 425-434.
48. **Sin BA. Insect Allergy**. In: Internal Medicine. (İliçin G, Biberoglu K, Süleymanlar G, Ünal S (Eds.). Güneş Tıp Kitabevi, Ankara, 2012: 2445-2454.
49. Soyuyigit Ş, **Sin BA**. New developments of the “ rhinitis pathogenesis”. Astım Allerji İmmünoloji Dergisi. 2013; 11: 15-22.
50. Özdemir SK, **Sin BA**. Induced sputum in asthma .Türk Toraks Derg 2013; 14 (suppl. 1): DOI: 10.5152/ttd.2013.xx

## BOOK CHAPTER

**Sin BA**. The Impact of Allergic Rhinitis on Asthma: Current View. In: Allergic Rhinitis. (Ed. Kowalski ML). InTech, Open access Publ., March 2012: 33-46.(ISBN: 978-953-51-0288-5).

## BOOK

**Sin BA**, Pınar NM, Misırlıgil Z, Ceter T, Yıldız A, Alan Ş (eds.). Pollen Allergy: A View to Allergy Plants in Turkey. Engin Publ. Ankara, 2007: pp.1-208.

## BOOK (Editor for Turkish Translation)

1. Z Mısırlıgil, **B A Sin**. Allerjik Hastanın Değerlendirilmesi. Veri Medikal Yayıncılık, Ankara, 2010: s.1-384. (ISBN:978-605-4089-27-7)  
"Managing the Allergic Patient". Krouse JH, Derebery MJ, Chadwick SJ (eds).  
Elsevier/Saunders (ISBN: 978-1-4160-3677-7).
2. Mario Castro, Monica Craft. Clinical Asthma.  
ASTIM. Editörler: **Betül Ayşe Sin**, Zeynep Mısırlıgil. ASTIM. Rotatıp Kitabevi,  
Ankara. 2013: 1-518. ( ISBN: 978-605-4431-23-6).

## SELECTED PUBLISHED ABSTRACTS

1990 WORLD CONFERENCE ON LUNG HEALTH, 20-24 May, Boston, Massachusetts

**Sin B**, Mısırlıgil Z, Gürbüz L. Specific IgE during immunotherapy with Turkish house dust antigen. American Review of Respiratory Disease 141(4):A757,1990.

ANNUAL MEETING OF THE EUROPEAN ACADEMY OF ALLERGOLOGY AND CLINICAL IMMUNOLOGY, 12-15 September 1993, Rotterdam, The Netherlands

**Sin B**, Mısırlıgil Z, Demirel Y, Gürbüz L, Bavbek S, Acıcan T. Increased chemotactic responses of neutrophils in intrinsic and mixed asthmatic patients. ALLERGY (Suppl) 48 (16); 59, 1993.

EUROPEAN RESPIRATORY SOCIETY (ERS) 4rd ANNUAL CONGRESS, 1-5 October 1994, Nice, France

**Sin B**, Mısırlıgil Z, Aybay C, Gürbüz L, İmir T. Serum levels of interleukin 4 (IL-4), interferon gamma (IFN- $\gamma$ ), total immunoglobulin E (IgE) and cytotoxicity in adult bronchial asthma. The European Respiratory Journal 7 (Suppl.18): 350s, 1994.

XVI EUROPEAN CONGRESS OF ALLERGOLOGY AND CLINICAL IMMUNOLOGY-  
ECACI'95, 25-30 June 1995, Madrid, Spain

**Sin B**, Mısırlıgil Z, Aybay C, Gürbüz L, İmir T. The effect of immunotherapy (IT) on natural killer (NK) cell activity in patients with respiratory allergy. *ALLERGY (Suppl.)* 50 (26):2476, 1995.

THE ANNUAL MEETING OF THE EUROPEAN ACADEMY OF ALLERGOLOGY AND  
CLINICAL IMMUNOLOGY EAACI'98, June 21-26 1998 Birmingham, United Kingdom

D. Tekin, **B A Sin**, D. Mungan, Z. Mısırlıgil, S. Yavuzer. The antioxidative defence and platelet functions in asthma. *ALLERGY European Journal of Allergy and Clinical Immunology (Suppl.)* 53 (43): 153, 1998.

THE AMERICAN ACADEMY OF ALLERGY, ASTHMA AND IMMUNOLOGY AAAAI  
57<sup>th</sup> ANNUAL MEETING March 16-21, 2001, New Orleans

D Ediger, **B A Sin**, A Heper, N Numanoglu, Y Anadolu, Z Misirligil. Immunohistochemical findings in nasal polyposis and asthma. *The Journal of Allergy and Clinical Immunology* 2001; 107 (2): A141.

THE AMERICAN ACADEMY OF ALLERGY, ASTHMA AND IMMUNOLOGY AAAAI  
58th ANNUAL MEETING March 1-6, 2002, New York

**B Sin**, X Wu, T Hoenig, S Kosmas, A Sanico, A Togias. Nasal allergen challenge induces inflammatory cell influx in sputum and peripheral eosinophilia. *The Journal of Allergy and Clinical Immunology* 2002;109 (1): S100-101 (A270).

XXII CONGRESS OF THE EUROPEAN ACADEMY OF ALLERGOLOGY AND  
CLINICAL IMMUNOLOGY EAACI' 2003, 7-11 June 2003, Paris.

**B A Sin**, M Akdis, J. Zumkehr, F Karamloo, Kurt Blaser, C A Akdis

T cell and antibody responses to phospholipase A2 from different species show distinct cross reactivity pattern. (Oral Abstract Session, 308).

III. BALKAN CONGRESS OF ALLERGY & CLINICAL IMMUNOLOGY, 11-14 October  
2003, Istanbul- Turkey

G Paşaoğlu, **B A Sin**, Z Mısırlıgil. Is the rush hymenoptera venom immunotherapy effective and safe? (Oral presentation- 012)

14<sup>th</sup> EUROPEAN RESPIRATORY SOCIETY (ERS) Annual Congress 4-8 September 2004, Glasgow, Scotland

A B Dursun, E Dursun, **B A Sin**, Z Mısırlıgil. The relation of chronic sinonasal involvement on computerized tomography scan with asthma severity. (Poster discussion, 3179). Eur Respir J 2004;24 (Suppl. 48): 509s.

AMERICAN ACADEMY OF ALLERGY ASTHMA & IMMUNOLOGY ANNUAL MEETING, 23-27 February, 2007, San Diego/ USA

**B A Sin**, H Tutkak, G Paşaoğlu, K Köse, Z Mısırlıgil. HLA Class I and Class II associations with bee and wasp venom allergy. (**Mini Symposium, 584**)

XXIX. CONGRESS OF THE EUROPEAN ACADEMY OF ALLERGOLOGY & CLINICAL IMMUNOLOGY, 5-9 June 2010 London, UK

Kepil Ozdemir S, Guloglu D, **Sin B**, Elhan A, İkinciogulları A, Mısırlıgil Z. Does the basophil specific ectoenzyme E-NPP3(CD203c) expression has a diagnostic value in pollen allergy? (Oral presentation: 1866). Allergy 2010; 65 (Suppl.92): 684.

30<sup>th</sup> CONGRESS OF THE EUROPEAN ACADEMY OF ALLERGY & CLINICAL IMMUNOLOGY, 11-15 June 2011, Istanbul, TURKEY

Kepil Ozdemir S, **Sin BA**, Guloglu D, İkinciogulları A, Mısırlıgil Z. The effect of preseasonal grass pollen allergoid immunotherapy on basophil CD203c expression. (Poster presentation: 1347).

XXXI. CONGRESS of the EUROPEAN ACADEMY of ALLERGOLOGY and CLİNICAL IMMUNOLOGY, Geneve, Switzerland. 16-20 June, 2012

**Sin BA**, Ozdemir SK, Guloglu D, İkinciogullari A, Mısırlıgil Z. Relationship between specific IgG4 and basophil activation during the first year of pre-seasonal grass pollen allergoid immunotherapy. (Poster: 1637).

Ozdemir SK, Guloglu D, **Sin BA**, İkinciogullari A, Mısırlıgil Z. Foxp3+ regulatory T cells during the first year of preseasonal immunotherapy. (Poster discussion: 286).

**Hereditary Angioedema Workshop Meeting 6-7 September, 2013. Avanos, Cappadocia**

Ş Soyyiğit, Ö Aydın, B A Sin, H Doğan, D Mungan. Hereditary angioedema: A Turkish family. Poster presentation-1.

G E Çelik, Ö Aydın, D Güloğlu, D Seçil, M Melli, F Doğu, A İkinciogulları, **B A Sin**, Y Demirel, Z Mısırlıgil. The effect of aspirin desensitization on the basophils. A Controlled-study. ( S-012,oral abstract). (Poster 1. award).

**Hereditary Angioedema Workshop Meeting 6-7 September, 2013. Avanos, Cappadocia**

Ş Soyyiğit, Ö Aydın, B A Sin, H Doğan, D Mungan. Hereditary angioedema: A Turkish family. Poster presentation-1.

**ANNUAL CONGRESS of the EUROPEAN ACADEMY of ALLERGOLOGY and CLINICAL IMMUNOLOGY Copenhagen, Denmark, 7-11 June 2014.**

Soyyiğit Ş, Aydın Ö, Saraçbaşı O, **Sin BA**, Mısırlıgil Z, Mungan D. The comparison of the efficacy of preseasonal grass pollen immunotherapy in monosensitised and polysensitised allergic rhinitis patients. Allergy 2014;69; suppl.99, 156 (Poster discussion session 11, Abstract no: 341).

Soyyiğit Ş, Güloğlu D, **Sin BA**, Öztuna D, İkinciogulları A, Mısırlıgil Z. Induction of basophil CD203c expression and IgE antibody response by specific immunotherapy with *Der p* allergen extract in monosensitised and polysensitised patients. Allergy 2014: 69;suppl.99, 606 (Late breaking poster session, Abstract no: 1766)

**EAACI ANNUAL CONGRESS 6-10 June 2015 Barcelona/Spain**

Soyyiğit Ş, Güloğlu D, İkinciogulları A, Seçil D, Öztuna D, Mungan D, Mısırlıgil Z, **Sin BA**. Specific immunotherapy with *Der p* in polysensitised and monosensitised patients which is more effective on local allergic response. P917. S.158.

**Sin BA**, Aydın Ö, Gelincik A, Gürlek F, Baysan A, Sin A, Öztuna D, Mısırlıgil Z, Oude-Elberink JNG. Quality of life in insect venom allergy: validation of the Turkish version of the vespid

allergy quality of life questionnaire (VQLQ-T). PDS 460. S98. **(Tartışmalı poster)**. EAACI Annual Congress 6-10 Haziran 2015 Barselona/İspanya

**EAACI ANNUAL CONGRESS 11-15 June 2016, Vienna /Austria**

**Sin BA**, Kendirlinan R, Çerçi P, et al. Re-sting reactions in real-life of patients receiving Hymenoptera venom immunotherapy. Thematic Poster Session.

Soyyigit Ş, **Sin BA**, Mungan D, et al. Monosensitized and polysensitized patients with respiratory allergy: are two different phenotypes? Poster Discussion Session.

**EAACI ANNUAL CONGRESS 17-21 June 2017 Helsinki/Finland**

**Sin BA**, Tutkak H, Birben E, Köse K, Mısırlıgil Z. Role of cytokine gene polymorphisms in Hymenoptera venom allergy. #350. Oral Abstract Session 05.

Çelik GE, Aydın Ö, Güloğlu D, Seçil D, Melli M, Doğu F, İkinciogulları A, **Sin B**, Demirel Y, Mısırlıgil Z. What happens to basophils and mediators of tryptase, LxA4, and CysLt during aspirin desensitization? # 967. Poster Discussion Session. (Award winner).

Gümüşburun R, Kendirlinan R, Altiner S, et al. Is mastocytosis really rare disease? 3 case experience. #778. Thematic Poster Session.

**EAACI ANNUAL CONGRESS , 26-30 May 2018; Munich-Germany**

Ş Soyğit, Ö Aydın, D Seçil, C Doğan, D Gökmen, **B A Sin**, Z Mısırlıgil, D Mungan. Effectiveness of preseasonal allergoid immunotherapy: Controlled trial in monosensitized and polysensitized patients. Abstract number: 809