

Academic curriculum vitae

Personal data

Name: Mag.^a Inga Koneczny, DPhil
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h-index: 9 (Web of Science)



Main areas of research: IgG4 Autoimmunity, Autoantibodies, Myasthenia gravis

Contributions to science

Inga Koneczny made significant contributions to the field of immunology, specifically in the field of myasthenia gravis and IgG4 autoimmunity. Her **three key contributions** are:

- 1) During her doctoral studies at the University of Oxford with Prof. Angela Vincent, FRS FRCPATH, she was the first to unravel the pathogenic mechanisms of MuSK IgG4 autoantibodies as a functional block of binding between MuSK and Lrp4, and demonstrated their pathogenicity *in vitro*. The work was cited 81 times (Scopus).
- 2) In her postdoctoral work with Prof. Marc De Baets and Dr Pilar-Martinez-Martinez, she was the first to discover that IgG4 autoantibodies against MuSK are bi-specific *in vivo*, and that bispecific autoantibodies are pathogenic *in vitro*, which was published in the Journal of Autoimmunity and cited 39 times (Scopus).
- 3) Moreover during her postdoctoral work at the Medical University of Vienna, she developed a classification system for IgG4 autoantibodies to determine the pathogenic role of IgG4 in autoimmune diseases, cited to date 21 times (Scopus).

Academic career

September 2018 – ongoing **Project leader**
Clinical Institute of Neurology
Vienna, Austria

November 2016 – August 2018 **Post-Doctoral Position**
Clinical Institute of Neurology
Vienna, Austria

October 2014 – **Post-Doctoral Position**
October 2016 Maastricht University, MHeNS School for Mental Health and
Neuroscience
Maastricht, Netherlands

March 2014 – **Post-Doctoral Position**
September 2014 Yale University, Department of Neurology
New Haven, United States

October 2010 – **University of Oxford**
February 2014 DPhil, Clinical Neurosciences, United Kingdom

October 2003 – **University of Vienna**
October 2009 Magister (passed with distinction), Molecular Biology, Austria

Academic recognition, prizes, awards

- 2020* **Invited speaker** at the “Lange Nacht der seltenen Erkrankungen“ (Long night of rare diseases Symposium), Vienna
- 2019* **Invited speaker** at the 14th Dresden Symposium on Autoantibodies
- 2019* **Selected speaker** at the 5th International Congress on Controversies in Rheumatology and Autoimmunity in Florence
Young Investigator Award for best oral presentation at the 5th International Congress on Controversies in Rheumatology and Autoimmunity in Florence
- 2018* **Selected speaker** at the Autoimmunity Congress in Lisbon
- 2017* **Travel grant** to the 13th International Conference on Myasthenia gravis and related Diseases, New York
- 2013* **Best Poster award** at Myasthenia gravis conference Paris
- 2013* Eva Dresel conference **travel award**
- 2013* **Selected speaker** at the Muscle Study Group (MSG) Annual Meeting, Oxford.
- 2001* **Heinrich Aldegrever Award** for excellent performance at school

Research grants and scholarships received

- 2018 **Hertha Firnberg project grant** by the Austrian Science Fund (FWF)
“Biological Markers in Myasthenia gravis” project number T996-B-30.
- 2014 **Erwin-Schrödinger Postdoctoral Fellowship** by the Austrian Science Fund (FWF)
“What are the pathogenic mechanisms of MuSK-Myasthenia gravis?”
Post-doctoral research project at Yale University/Maastricht University and the Medical University of Vienna, mentored by Dr. Kevin O’Connor, Prof. Marc de Baets and Prof. Romana Höftberger
- 2011 **Doc fFORTE fellowship** of the Austrian Academy of Sciences (ÖADW)
“What B cells are pathogenic in MuSK-Myasthenia gravis?”
DPhil project at the University of Oxford, supervision by Angela Vincent, FRS FRCPATH. Project number J 3545-B13.

Research grants prepared and submitted

- 2020 • Curriculum coordinator of an EJP-RD (European Joint Program on Rare Diseases) with seven European partners (six from academia, one SME, five further collaborations, with two PAOs involved). Topic: The systematic study of IgG4 autoimmune diseases (submitted)
- 2019 • Jubiläumsfond der Österreichischen Nationalbank with Ruth Herbst (rejected)
- 2017-2018 • **Hertha Firnberg project grant from the Austrian Science fund (accepted)**
- Marie Skłodowska Curie Actions Individual Fellowship (rejected), but received “**Seal of Excellence**” for outstanding proposal
 - Hertha Firnberg project grant (rejected)
 - Marie Skłodowska Curie Actions Innovative Training Networks (ITN) as project partner (rejected)
 - Marie Skłodowska Curie Actions Innovative Training Networks (ITN) as project partner (rejected)
 - Muscular Dystrophy Association grant (rejected)

- 2014- • **AFM Téléthon grant, for Pilar Martinez (accepted)**
- 2017 • AFM Téléthon grant, for Pilar Martinez (rejected)
- Prinses Beatrix Spierfonds, for Pilar Martinez (rejected)
- Myasthenia Gravis Association of America 2016 Pilot project grant for Pilar Martinez (rejected)

- 2013 • **Erwin Schrödinger Fellowship of the Austrian Science Fund (FWF) (accepted)**
- James Hudson Brown-Alexander Brown Coxe Postdoctoral Fellowship in the Medical Sciences (rejected)
- EMBO Long Term Fellowship (rejected)
- Sir Henry Wellcome Postdoctoral Fellowship (rejected)

- 2010 • **DOC-fFORTE stipend from the Austrian academy of Sciences (accepted)**
- Bayer PhD scholarship (rejected)
- PhD scholarship of the Boehringer Ingelheim Fonds (rejected)
- Schering PhD fellowship (rejected)

Teaching and supervision activities

- 2019- *ongoing* Work in progress seminar series for PhD students at the Neuroimmunology group, Medical University of Vienna

- 2018- *ongoing* Lab supervision of seven Master thesis projects (life sciences students), two Diploma thesis projects (medical students) and several practical internships, Medical University of Vienna

- 2018- *ongoing* Neuropathology Journal club within the “Clinical neurosciences” (CLINS) PhD program at the Medical University of Vienna

- 2018- *ongoing* Annual lecture within the “Clinical neurosciences” (CLINS) PhD program at the Medical University of Vienna

- 2018- *ongoing* Annual lecture and practical course in “Basics of Neuroscience” at the Medical University of Vienna

- 2017 Lab supervision of two final year master students and co-supervision of a PhD student at Maastricht University

- 2014 - Tutoring three practical courses in Neuroimmunology (ELISA and cell culture)
2016 for Bachelor students, Maastricht University
- 2016 Two lectures: Introduction to autoimmunity (2h) and Introduction to
autoantibody-based methods (2h), Maastricht University
- 2015 - Lab supervision of two final year Bachelor students (Bachelor thesis work)
2016 and two first year Bachelor student internships, Maastricht University

Public outreach / Press releases

- 2020 **Invited article** on IgG4 autoimmune diseases for the journal “UNIVERSUM
INNERE MEDIZIN (magazine on internal medicine)
Invited guest lecture for Science Day at the Hertha Firnberg” school for
Business and Tourism, Vienna
- 2019 **Invited Speaker** at Svar Life Science AB, Malmö, Sweden
MUW Presseaussendung (also published in a range of different
newspapers): “Experts from MedUni Vienna and Vienna General Hospital
identify previously unknown bacterial strain” ([Link](#))
Bezirkszeitung Wien: „Ein Körper, der zum Feind wird“ ([Link](#))
- 2018 **MedUnique magazine** and MUW website: “Inga Koneczny awarded
"Hertha Firnberg" scholarship by the FWF” ([Link](#))

Publication list

List of all peer-reviewed published or accepted scholarly publications

Original research

2020 D. De Simoni, G. Ricken, **I. Koneczny**, M. Winklehner, M. Karenfort, U. Hustedt, U. Seidel, O. Abdel-Mannan, P. Munot; C. Steen, M. Freilinger, M. Breu, R. Seidl, M. Reindl, J. Wanschitz C. Lleixá, Bernert G1 K.P. Wandinger, R. Junker, L. Querol, F. Leyboldt, K. Rostásy*, R. Höftberger*. Paranodal antibodies in paediatric immune-mediated neuropathy - clinical and immunologic analysis. Neurology, Neuroimmunology & Neuroinflammation. Manuscript in review.

Hakan Cetin, Richard Webster, Wei W. Liu, **Inga Koneczny**, Fritz Zimprich, Susan Maxwell, Judith Cossins, David Beeson, , Angela Vincent. Rapsyn facilitates inhibition of AChR function by myasthenia gravis sera with AChR-Abs. Journal of Neurology, Neurosurgery, and Psychiatry manuscript in review.

2019 Tomschik*, M.; **Koneczny***, I.; Schotta, A.M.; Scharer, S.; Smajlhodzic, M.; Rosenegger, P.F.; Bluthner, M.; Hoftberger, R.; Zimprich, F.; Stanek, G., et al. Severe Myasthenic Manifestation of Leptospirosis Associated with New Sequence Type of Leptospira interrogans. Emerging infectious diseases 2019, 25, 968-971, doi:10.3201/eid2505.181591. *equal contributions

Koneczny I, Rennspiess D, Marcuse F, Hamid MA, Damas M, Maessen J, Van Schil P, Saxena A, Zisimopoulou P, Lazaridis K, Woodhall M, Karagiorgou K, Tzartos J, Tzartos S, De Baets MH, Molenaar PC, Marx A, Hausen AZ, Losen M, Martinez-Martinez P. "Characterization of the thymus in Lrp4 myasthenia gravis: Four cases." Autoimmun Rev. 2019 Nov 8. pii: S1568-9972(18)30260-X. doi: 10.1016/j.autrev.2018.07.011.

2017 **Koneczny, I., J. A. Stevens, A. De Rosa, S. Huda, M. G. Huijbers, A. Saxena, M. Maestri, K. Lazaridis, P. Zisimopoulou, S. Tzartos, J. Verschuuren, S. M. van der Maarel, P. van Damme, M. H. De Baets, P. C. Molenaar, A. Vincent, R. Ricciardi, P. Martinez-Martinez and M. Losen (2017). "IgG4 autoantibodies against muscle-specific kinase undergo Fab-arm exchange in myasthenia gravis patients." J Autoimmun 77: 104-115.**

Saxena, A., Stevens, J., Cetin, H., **Koneczny, I.**, Webster, R., Lazaridis, K., Tzartos, S., Vrolix, K., Nogales-Gadea, G., Machiels, B., Molenaar, P.C., Damoiseaux, J., De Baets, M.H., Simon-Keller, K., Marx, A., Vincent, A., Losen, M., and Martinez-Martinez, P. (2017). Characterization of an anti-fetal AChR monoclonal antibody isolated from a myasthenia gravis patient. Sci Rep 7, 14426.

Rolf, L., A. H. Muris, A. Mathias, R. Du Pasquier, I. **Koneczny**, G. Disanto, J. Kuhle, S. Ramagopalan, J. Damoiseaux, J. Smolders and R. Hupperts (2017). "Exploring the effect of vitamin D3 supplementation on the anti-EBV antibody response in relapsing-remitting multiple sclerosis." Mult Scler: 1352458517722646.

Saxena, A., Stevens, J., Cetin, H., **Koneczny, I.**, Webster, R., Lazaridis, K., Tzartos, S., Vrolix, K., Nogales-Gadea, G., Machiels, B., Molenaar, P.C., Damoiseaux, J., De Baets, M.H., Simon-Keller, K., Marx, A., Vincent, A., Losen, M., and Martinez-Martinez, P. (2017). Characterization of an anti-fetal AChR monoclonal antibody isolated from a myasthenia gravis patient. Sci Rep 7, 14426.

2015 **Koneczny, I., A. Schulenburg, X. Hudec, M. Knofler, K. Holzmann, G. Piazza, R. Reynolds, P. Valent and B. Marian (2014). "Autocrine fibroblast growth factor 18 signaling mediates Wnt-dependent stimulation of CD44-positive human colorectal adenoma cells." Mol Carcinog 54(9): 789-799.**

2014 Huda, S., I. **Koneczny**, L. Jacobsen, D. Beeson and A. Vincent (2014). "SERONEGATIVE MYASTHENIA GRAVIS-CLINICAL/SEROLOGICAL ASPECTS." Journal of Neurology, Neurosurgery & Psychiatry 85(10): e4-e4.

2013 **Koneczny, I.**, J. Cossins, P. Waters, D. Beeson and A. Vincent (2013). "MuSK Myasthenia Gravis IgG4 Disrupts the Interaction of LRP4 with MuSK but Both IgG4 and IgG1-3 Can Disperse Preformed Agrin-Independent AChR Clusters." PLoS One 8(11): e80695.

Top 10% of most cited articles of PloS One

2011 Rohrl, C., U. Kaindl, **I. Koneczny**, X. Hudec, D. M. Baron, J. S. Konig and B. Marian (2011). "Peroxisome-proliferator-activated receptors gamma and beta/delta mediate vascular endothelial growth factor production in colorectal tumor cells." J Cancer Res Clin Oncol 137(1): 29-39.

Reviews

2019 **Koneczny, I.**; Herbst, R. Myasthenia Gravis: Pathogenic Effects of Autoantibodies on Neuromuscular Architecture. Cells 2019, 8, doi:10.3390/cells8070671.

2018 Ricken G, Schwaiger C, De Simoni D, Pichler V, Lang J, Glatter S, Macher S, Rommer PS, Scholze P, Kubista H, **Koneczny I**, Höftberger R, "Detection Methods for Autoantibodies in Suspected Autoimmune Encephalitis." Front Neurol. 2018 Oct 10;9:841. doi: 10.3389/fneur.2018.00841. eCollection 2018.

Vincent A, Huda S, Cao M, Cetin H, **Koneczny I**, Rodriguez-Cruz P, Jacobson L, Viegas S, Jacob S, Woodhall M, Nagaishi A, Maniaol A, Damato V, Leite MI, Cossins J, Webster R, Palace J, Beeson D. "Serological and experimental studies in different forms of myasthenia gravis." Ann N Y Acad Sci. 2018 Feb;1413(1):143-153. doi: 10.1111/nyas.13592. Epub 2018 Jan 29. Review.

Koneczny, I., "A new classification system for IgG4 autoantibodies". Front Immunol (Autoantibodies special issue).

2014 Cossins, J., K. Belaya, K. Zoltowska, I. **Koneczny**, S. Maxwell, L. Jacobson, M. I. Leite, P. Waters, A. Vincent and D. Beeson (2012). "The search for new antigenic targets in myasthenia gravis." Annals of the New York Academy of Sciences 1275(1): 123-128.

Koneczny, I., J. Cossins and A. Vincent (2014). "The role of muscle-specific tyrosine kinase (MuSK) and mystery of MuSK myasthenia gravis." *J Anat* 224(1): 29-35.

2012 Vincent, A., P. Waters, M. I. Leite, L. Jacobson, I. **Koneczny**, J. Cossins and D. Beeson (2012). "Antibodies identified by cell-based assays in myasthenia gravis and associated diseases." *Ann N Y Acad Sci* 1274: 92-98.

Research chapters in collective volumes

2016 **Koneczny I**, Martinez-Martinez P, de Baets, M (2016). Myasthenia gravis. *Encyclopedia of Immunobiology*. M. J. H. Ratcliffe, Oxford: Academic Press. 5: 168-179.

Conference proceedings

2019 **Koneczny, I**, Update on IgG4 autoimmune diseases
Dresden, 14th Dresden Symposium on Autoantibodies, 10-13 Sept 2019
Invited speaker

Koneczny, I, A new classification system for IgG4 autoantibodies
Florence, Italy, 5th International Congress on Controversies in Rheumatology and Autoimmunity, 14-16 March 2019
Selected speaker, Young Investigator Award

2018 **Inga Koneczny**, Jo A.A. Stevens, Anna De Rosa, Saif Huda, Maartje G. Huijbers, Abhishek Saxena, Michelangelo Maestri, Konstantinos Lazaridis, Paraskevi Zisimopoulou, Socrates Tzartos, Jan Verschuuren, Silvère M. van der Maarel, Philip van Damme, Marc H. De Baets, Peter C. Molenaar, Angela Vincent, Roberta Ricciardi, Pilar Martinez-Martinez, Mario Losen: *IgG4 autoantibodies against muscle-specific kinase undergo Fab-arm exchange in myasthenia gravis patients*
Lisbon, 11th International Congress on Autoimmunity, 16-20 May 2018
Selected speaker

- 2017 **Inga Koneczny**, Jo A.A. Stevens, Anna De Rosa, Saif Huda, Maartje G. Huijbers, Abhishek Saxena, Michelangelo Maestri, Konstantinos Lazaridis, Paraskevi Zisimopoulou, Socrates Tzartos, Jan Verschuuren, Silvère M. van der Maarel, Philip van Damme, Marc H. De Baets, Peter C. Molenaar, Angela Vincent, Roberta Ricciardi, Pilar Martinez-Martinez, Mario Losen: *IgG4 autoantibodies against muscle-specific kinase undergo Fab-arm exchange in myasthenia gravis patients* New York Academy of Sciences 2017 - 13th International Conference on Myasthenia Gravis and Related Disorders; 05/2017
Award of a travel grant
- 2015 **Koneczny, I.**, A. De Rosa, M. Maestri, J. verschuuren, M. G. Huijbers, P. Martinez-Martinez, M. De Baets, R. Riccardi and M. Losen (2015). Fab-arm exchange as a novel mechanism in myasthenia gravis with autoantibodies to muscle-specific kinase. 4th European Congress of Immunology (ECI), Vienna.
- 2014 Huda, S., I. **Koneczny**, L. Jacobsen, D. Beeson and A. Vincent "P45 Seronegative myasthenia gravis"2013; clinical and serological features." Neuromuscular Disorders 24: S19.
- 2013 **Koneczny I**, Cossins J, M. Leite, B. Lang, Beeson D and V. A (2013). POTENTIAL MECHANISMS IN MUSK-MYASTHENIA GRAVIS. Muscle Study Group (MSG) Annual Meeting, Oxford.
Invited Speaker
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- Koneczny, I.**, J. Cossins, M. Leite, B. Lang, D. Beeson and A. Vincent (2013). Potential mechanisms in MUSK--Myasthenia Gravis. Myasthenia 2013, Paris.
Best Poster award
Eva Dresel conference travel award