

Curriculum Vitae

Personal Details

Andreas Puschmann, M.D., Ph.D.

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Personal Profile

Currently I hold a position as board-certified neurologist at Lund University Hospital, Sweden. My clinical focus during the last years has been in Movement Disorders, especially Parkinson's disease and dystonia. In a 50% part time clinical research post awarded by the Swedish Parkinson Academy, I study patients with hereditary parkinsonism. During 2010 I was appointed as Visiting Scientist to Mayo Clinic, where I worked with clinical research on hereditary parkinsonism for Prof. Zbigniew K. Wszolek in the Department of Neurology and with laboratory genetics for Prof. Matthew J. Farrer and Assoc. Prof. Owen A. Ross in the Department of Neuroscience. For the three years 2012-2014 I am awarded a scholarship for 50% research for studies on the genetics of disorders with parkinsonism and dystonia by the Swedish Health Authorities (ALF-YF).

Career and related Accomplishments

During medical school in Heidelberg and Munich, Germany, I wrote a doctoral thesis in the field of gastroenterology / cellular physiology. I studied primary cultures of isolated parietal cells from the stomach mucosa, and implemented methods including immunohistochemistry, organelle separation, protein-DNA binding studies on this cell system.

I gained experience in clinical work in different health care systems during a number of internships in hospitals in Germany, Scotland, Australia, Sweden and Switzerland and through research work at Mayo Clinic. Since 2002, I have been working in Southern Sweden, initially in internships to receive the Swedish/European Union medical license, then in pediatrics, and finally in clinical neurology.

After my residency in neurology at Lund University Hospital, I now work as board certified neurologist at the same Hospital. Besides participating in the clinic's program's general training covering all aspects of neurology, I am also part of the Department's Movement Disorders Team.

From 2007 I was awarded a grant from the Swedish Parkinson Academy for a 50% research post during 4 years, enabling me to continue studying patients with hereditary parkinsonian disorders in Southern Sweden. Within this project (PIs / senior researchers Dr. Christer Nilsson, and Prof. Håkan Widner), I have established the necessary local infrastructure for such research as well as valuable national and international co-operations, including contact with Mayo Clinic, Jacksonville, USA. The work was summarized in my Swedish doctoral thesis, "Heredity in Parkinson's disease. From rare mutations to common genetic risk factors", which I defended on October 14th, 2011.

Work Experience

POSITION / TASK	DATE
<u>Current positions:</u> Neurologist, Lund University Hospital, Sweden	since Oct 2009
<u>Past positions:</u> Visiting Scientist, Depts. for Neurology and Neuroscience, Mayo Clinic, Jacksonville, USA	Jan 2010 - Jan 2011
Residency in Neurology (Board Examination in April 2009)	Sept 2005 - Oct 2009
Visiting Scientist at Mayo Clinic, Jacksonville, U.S.A.	Sept / Oct 2007
Clinical Research post (hereditary parkinsonism, awarded by The Swedish Parkinson Academy, part time 50%)	Aug 2007 – Dec 2011
Internships in medicine, pediatrics, neurology	April 2004 - Aug 2005
Swedish Medical License	April 2004
German Medical License	March 2004
Internships in Medicine, Pediatrics, Surgery	April 2004 - Aug 2005
Medical Examination (Medical School Graduation)	May 2002
Laboratory research as Doctoral Student at Technical University Medical School, Munich, Germany	Sept 1998 - Aug 2003 (part time)

Education

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Heidelberg Medical School, and Technical University of Munich Medical School (both in Germany)	M.D.	1996 – 2002	Medical school
Technical University of Munich, Germany	Dr. med. (German PhD)	1998 - 2003 (part time)	Cell physiology
Hospitals in Region Skåne, Sweden	Swedish Medical Licence	2002 – 2004	Internships
University Hospitals Lund / Malmö, Sweden	Board Certification in Neurology (Oct 2009)	2004 and 2005-present	Residency in Neurology
Lund University, Sweden	Dr. med. vet. (Swedish PhD)	2006-2011	Hereditary parkinsonism

Publications:

Doctoral Thesis (Germany):

Puschmann, A. Characterisation of the functional role of the inducible transcription factor NF-kappaB in isolated rat parietal cells. *published online at* <http://tumb1.biblio.tu-muenchen.de/publ/diss/me/2003/puschmann.html>.

Doctoral Thesis (Sweden):

Puschmann, A. "Heredity in Parkinson's disease. From rare variants to common genetic risk factors" Lund University, Faculty of Medicine Doctoral Dissertation Series 2011:95. ISBN 978-91-86871-44-4. ISSN 1652-8220.

Journal Publications:

Neu, B., **A.J. Puschmann**, A. Mayerhofer, P. Hutzler, J. Grossmann, F. Lippl, W. Schepp, C. Prinz. TNF- α induces apoptosis of parietal cells by activation of NF- κ B. *Biochemical Pharmacology* 2003;65:1755-1760.

Puschmann A, Cronqvist J, Maly P, Englund E, Pessah-Rasmussen H. Neurocysticercosis som orsak till epileptiskt anfall. Infektion med svinbandmask finns sporadiskt i Skandinavien [Neurocysticercosis as the cause of epileptic seizure. Rare occurrence of pork tapeworm infection in Scandinavia]. *Läkartidningen* 2006;103(12):938-942.

- Puschmann A.** Unverricht-Lundborg's disease - a misnomer? *Mov Disord*,2009;24(4):629-630.
- Puschmann A.,** Z. Wszolek, M. Farrer, L. Gustafson, H. Widner, C. Nilsson. Alpha-synuclein multiplications with parkinsonism, dementia or progressive myoclonus? *Parkinsonism Relat Disord*. 2009 Jun;15(5):390-2. [Epub 2008 Sep 27.]
- Puschmann A,** Ross OA, Vilariño-Güell C, Lincoln SJ, Kachergus JM, Cobb SA, Lindquist SG, Nielsen JE, Wszolek ZK, Farrer M, Widner H, van Westen D, Hägerström D, Markopoulou K, Chase BA, Nilsson K, Reimer J, Nilsson C. A Swedish family with de novo alpha-synuclein A53T mutation: Evidence for early cortical dysfunction. *Parkinsonism Relat Disord*. 2009 Nov;15(9):627-32. Epub 2009 Jul 25.
- Ross OA, Wilhoite GJ, Bacon JA, Soto-Ortolaza A, Kachergus J, Cobb SA, **Puschmann A,** Vilariño-Güell C, Farrer MJ, Graff-Radford N, Meschia JF, Wszolek ZK. LRRK2 variation and Parkinson's disease in African Americans. *Mov Disord*. 2010 Sep 15;25(12):1973-6.
- Elbaz A, Ross OA, Ioannidis JPA, Soto-Ortolaza AI, Moisan F, [...] Nilsson C, **Puschmann A,** [...] Maraganore DM, Farrer MJ on behalf of the Genetic Epidemiology Of Parkinson's Disease (GEOPD) consortium. Independent and joint effects of the MAPT and SNCA genes in Parkinson's disease. *Ann Neurol* 2011 May;69(5):778-792.
- Puschmann A.,** Z.K. Wszolek. Diagnosis and Treatment of Common Forms of Tremor. *Semin Neurol*. 2011 Feb;31:65–77.
- Puschmann A,** Verbeeck C, Heckman MG, Soto-Ortolaza AI, Lynch T, Jasinska-Myga B, Opala G, Krygowska-Wajs A, Barcikowska M, Uitti RJ, Wszolek ZK, Ross OA: Human leukocyte antigen variation and Parkinson's disease. *Parkinsonism Relat Disord*. 2011 Jun;17(5):376-8.
- Puschmann A,** LeDoux MS, Xiao J, Bastian RW, Searcy JA, Wszolek ZK. Familial Late-Onset Focal Dystonia in an African American Family. *Parkinsonism Relat Disord*. 2011 Aug;17(7):547-50.
- Puschmann A,** Pfeiffer RF, A. Stoessl J, Kuriakose R, Lash JL, Searcy JA, Strongosky AJ, Vilariño-Güell C, Farrer MJ, Ross OA, Dickson DW, and Wszolek ZK. A family with parkinsonism, essential tremor, restless legs syndrome and depression. *Neurology*. 2011 May 10;76(19):1623-30. [Abstract announce in earlier issue]
- Vilariño-Güell C, Wider, Ross OA, Dachsel JA, Lincoln SJ, Kachergus JM, Soto-Ortolaza AI, Cobb SA, Wilhoite GJ, Bacon JA, Behrouz B, Melrose HL, Hentati E, **Puschmann A,** Conibear E, Wasserman WW, Aasly JO, Burkhard PR, Djaldetti R, Ghika J, Hentati F, Krygowska-Wajs A, Lynch T, Melamed E, Rajput A, Rajput AH, Solida A, Wu R-M, Uitti RJ, Wszolek ZK, Vingerhoets F, Farrer MJ. VPS35 mutations in Parkinson disease. *Am J Hum Genet*. 2011 Jul 15;89(1):162-7.
- Ross OA, AI Soto-Ortolaza, MG Heckman, JO Aasly, N Abahuni, G Annesi, JA Bacon, S Bardien, M Bozi, A Brice, L Brighina, C Van Broeckhoven, J Carr, M-C Chartier-Harlin, E Dardiotis, DW Dickson, NN Diehl, A Elbaz, C Ferrarese, A Ferraris, B Fiske, JM Gibson, R Gibson, GM Hadjigeorgiou, N Hattori, JPA Ioannidis, B Jasinska-Myga, BS Jeon, YJ Kim, C Klein, R Kruger, E Kyrtzi, S Lesage, C-H Lin, T Lynch, DM Maraganore, GD Mellick, E Mutez, C Nilsson, G Opala, SS Park, **A Puschmann,** A Quattrone, M Sharma, PA Silburn, YH Sohn, L Stefanis, V Tadic, J Theuns, H Tomiyama, RJ Uitti, EM Valente, S van de Loo, DK Vassilatis, C Vilariño-Güell, LR White, K Wirdefelt, ZK Wszolek, R-M Wu, MJ Farrer, on behalf of the Genetic Epidemiology Of Parkinson's Disease (GEOPD) consortium. LRRK2 exonic variants and susceptibility to Parkinson's disease. *Lancet Neurol*. 2011 Oct;10(10):898-908.
- Puschmann A,** Englund E, Ross OA, Vilariño-Güell C, Lincoln SJ, Kachergus JM, Cobb SA, Törnquist A-L, Rehncrona S, Bjartmarz H, Reimer J, Nilsson K, Widner H, Wszolek ZK, Farrer MJ, Nilsson C. First appraisal of the neuropathology of LRRK2 N1437H shows prominent ubiquitin and limited alpha-synuclein pathology. [Accepted for publication in *Parkinsonism Relat Disord*]

Puschmann A, Bhidayasiri, R, Weiner WJ. Synucleinopathies from Bench to Bedside. [Accepted for publication in *Parkinsonism Relat Disorders*]

Puschmann A, ZK Wszolek. Olfactory Dysfunction. In: Ronald F. Pfeiffer, and Ivan Bodis-Wollner (eds.): Parkinson's Disease and Non Motor Dysfunction, 2nd Edition. Springer, New York. [Book chapter. In press].

Abstracts/Posters:

Puschmann, A., K. Dehne, S. Page, M. Classen, W. Schepp. In purified rat parietal cells NF- κ B is activated by proinflammatory cytokines and H₂O₂. *Gastroenterology* 1998;114:A1173.

Puschmann, A., B. Neu, H. Herrmuth, M. Classen, and W. Schepp. Subunit composition of inducible transcription factor NF- κ B in isolated rat parietal cells. *Gastroenterology* 1999;116:A287.

Neu, B., **A. Puschmann**, H. Herrmuth, F. Ernst, M. Classen, W. Schepp. Pro-apoptotic role for NF- κ B in rat parietal cells. *Gastroenterology* 1999;116:A474.

Puschmann, A., B. Neu, H. Herrmuth, P. Hutzler, M. Classen, W. Schepp. Analyse der Untereinheiten des induzierbaren Transkriptionsfaktors NF κ B in Parietalzellen der Ratte. *Z Gastroenterol* 1999; 37:839.

Neu, B., **A. Puschmann**, H. Herrmuth, F. Ernst, P. Hutzler, M. Classen, W. Schepp. Pro-apoptotische Wirkung von NF κ B in Parietalzellen der Ratte. *Z Gastroenterol* 1999; 37:839.

Neu, B., **A. Puschmann**, H. Herrmuth, M. Classen, W. Schepp. Inhibition of TNF- α -induced apoptosis by transfection of rat parietal cells with antisense-oligonucleotides against NF- κ B's p65 subunit. *Gastroenterology* 2000;118:A90.

Puschmann A., M. Farrer, Z.K. Wszolek, H. Widner, L. Gustafson, C. Nilsson. The "Lister family": An extended pedigree with alpha-synuclein multiplications, Parkinson's Disease, and other neurodegenerative diseases. 18th Annual NECTAR meeting, Dec 6-8, 2007. [Abstract Book]

Puschmann A., Z.K. Wszolek, M. Farrer, C. Nilsson. The "Lister family": An extended pedigree with alpha-synuclein multiplications and Parkinson's disease. *Parkinsonism Relat Disord* 2007;13,S95.

Puschmann, A., J. Reimer, K. Nilsson, H. Widner, C. Nilsson. PARLU (PARKinson LUnd): En klinisk-genetisk studie inom Svenska Parkinsonakademien. Sv. Neurologföreningens Vårmöte, Göteborg, May 13-15, 2009.

Puschmann, A., O. Ross, C. Vilarino-Güell, S. Lincoln, Z.K. Wszolek, M. Farrer, H. Widner, C. Nilsson. Parkinsonism and early cortical involvement in a Swedish family with alpha-synuclein Ala53Thr mutation. *Mov Disord*, 2009;24(Suppl. 1), S149. [poster selected for guided tour]

Puschmann, A., H. Widner, C. Nilsson. Herman Lundborg did not describe Unverricht-Lundborg disease: Hyperekplexia in a Swedish family with hereditary Parkinson's disease due to alpha-synuclein multiplications. *Eur J Neurol* 2009;16(suppl.3):153

Puschmann A., S. Lindskov, C. Marktorp, C. Nilsson, K. Nilsson, J. Reimer, D. van Westen, E. Persson, H. Widner, S. Lincoln, S. Cobb, O. Ross, C. Vilarino-Güell, M. Farrer, Z.K. Wszolek. Hereditary Parkinson's Disease of Unknown Genetic Cause in Two Families from Southern Sweden. [Abstract, 24th Annual Symposium on Etiology, Pathogenesis, and Treatment of Parkinson's Disease and Other Movement Disorders, Washington D.C., U.S.A., May 15, 2010] *Mov Disord*, 2010; 25(6):IX.

Vilarino-Güell C, Wider, Ross OA, Dachsel JA, Lincoln SJ, Kachergus JM, Soto-Ortolaza AI, Cobb SA, Wilhoite GJ, Bacon JA, Behrouz B, Melrose HL, Hentati E, **Puschmann A**, Conibear E, Wasserman WW, Aasly JO, Burkhard PR, Djaldetti R, Ghika J, Hentati F, Krygowska-Wajs A, Lynch T, Melamed E, Rajput A, Rajput AH, Solida A, Wu R-M, Uitti RJ, Wszolek ZK, Vingerhoets F, Matthew J Farrer

PhD. Exome sequencing identifies mutations in VPS35 in Parkinson disease. Presented at AD/PD Barcelona, March 2011. *Neurodegen Dis* 2011, Vol. 8, Suppl. 1.

Puschmann A, LeDoux MS, Xiao J, Bastian RW, Searcy JA, Wszolek ZK. Familial Late-Onset Focal Dystonia in an African American Family. 135th Annual Meeting of the American Neurological Association Sept 2010. San Francisco, U.S.A. *Ann Neurol*, Vol. 68 (suppl 14), 2010, S69.

Publications (Popular Science):

"Forskare vill studera Parkinsondrabbade". [*Newspaper Article*] Blekinge Läns Tidning June 18th, 2007.

Ärftlig Parkinsons ger kunskap om sjukdomsprocesser. Aktuellt om Vetenskap och Hälsa, Nov 2008.

Sällsynt mutation gav Parkinsons sjukdom i sydsvensk familj. Press Release Lund University, Sweden, Nov 4th, 2009.

Hans forskning dödar myten om Listersjukan. [*Newspaper Article*] Sydöstran, Nov 13th, 2009.

Ärftlighet vid Parkinsons sjukdom. Parkinsonjournalen 2010.

Congress Attendance (Selection)

Svenska Neurologföreningens vårmöte [Spring Convention of the Swedish Neurological Association], Malmö, Sweden (2005)

4th Epilepsy Summit, Prague, Czech Republic (2006)

Neurowoche 2006, Mannheim, Germany (2006)

German-Scandinavian Meeting on Movement Disorders, Gothenborg, Sweden and Kiel, Germany (2007)

NECTAR [Network of European CNS Transplantation and Restoration] 18th annual meeting, Lund, Sweden (2007)

XVII WFN World Congress on Parkinson's Disease and Related Disorders, Amsterdam, Netherlands (2007)

Ovanliga Demenssjukdomar: Ett nationellt symposium [Unusual dementias: A national symposium], Lund, Sweden (2007)

3rd Annual Meeting of the The Genetic Epidemiology of Parkinson's Disease Consortium [GEO-PD]. Trondheim (2008)

133rd Annual Meeting of the American Neurological Association, Salt Lake City (2008)

Svenska Neurologföreningens vårmöte, [Spring Convention of the Swedish Neurological Association] Gothenborg, Sweden (2009)

The Movement Disorder Society's 13th International Congress of Parkinson's Disease and Movement Disorders, Paris (2009)

4th Annual Meeting of the The Genetic Epidemiology of Parkinson's Disease Consortium [GEO-PD]. Tübingen, Germany (2009)

13th Congress of the European Federation of Neurological Societies [EFNS], Florence, Italy (2009).

Parkinson Study Group [PSG] Symposium on Parkinson's Disease and Other Movement Disorders. Irving, TX, U.S.A. (2010)

24th Annual Symposium on Etiology, Pathogenesis, and Treatment of Parkinson's Disease and Other Movement Disorders. Washington D.C., U.S.A. (2010)

135th Annual Meeting of the American Neurological Association. San Francisco, CA, U.S.A. (2010)

The Movement Disorder Society's 14th International Congress of Parkinson's Disease and Movement Disorders, Toronto, Canada (2011)

XIX WFN World Congress on Parkinson's Disease and Related Disorders Shanghai, China (upcoming, Dec 2011)

Oral Presentations at International Scientific Meetings:

NECTAR [Network of European CNS Transplantation and Restoration] 18th annual meeting, Lund, Sweden (2007)

135th Annual Meeting of the American Neurological Association Sept 2010. San Francisco, U.S.A. 2010.

3rd Annual Meeting of the The Genetic Epidemiology of Parkinson's Disease Consortium [GEO-PD]. Trondheim (2008)

4th Annual Meeting of the The Genetic Epidemiology of Parkinson's Disease Consortium [GEO-PD]. Tübingen, Germany (2009)

XIX WFN World Congress on Parkinson's Disease and Related Disorders Shanghai, China (upcoming, Dec 2011) (Session Chairperson and Oral Presentation)

Additional Presentations

Lectures for neurologists / physicians / nurses

Neurology Grand Rounds, Lund University Hospital, Sweden (2007)

Neurophysiology Grand Rounds, Lund University Hospital, Sweden (2008)

Day for Regional Neurologists, Lund University Hospital, Sweden (2008)

Neurology Clinic, Kristianstad, Sweden, Nov 2007

Neurology Grand Rounds, Lund University Hospital, Sweden (2009)

Tremor (for Primary Care Residents, Mayo Clinic, USA, 2010)

Dystonia (for Neurology Residents, Mayo Clinic, USA, 2010)

Mayo Clinic in Florida Neurology Grand Rounds, Oct 2010.

Dystonia, Lund University Dept. Of Neurology, 2011

Lectures for Patient Associations

Parkinson Blekinge Saltsjö, Sweden, April 2007

World Parkinson Day, Lund, Sweden (2007)

Neurophysiology Grand Rounds, Lund University Hospital, Sweden (2008)

Day for Regional Neurologists, Lund University Hospital, Sweden (2008)

Lund University Research Day [Forskningens Dag] 2008, Lund, Sweden and Malmö, Sweden (2008)

World Parkinson Day, Lund, Sweden (in the presence of Her Majesty Queen Silvia of Sweden) (2009)

"Genetics of Parkinson's" Parkinson's Disease Monthly Support Group Meeting. Shands Hospital, Jacksonville, USA (April 2010)

Parkinsonförbundet, Malmö, (May 2011)

Olle Engkvist Symposium Lund (Aug 2011)

Swedish Dystonia Association, Malmö (Oct 2011)

Teaching Experience

Teaching of Undergraduate Medical Students (Lund University, Sweden)

Introduction to Neurology

Neurological Examination

Journal Club Biomedical Centrum Lund University

Swedish Parkinson Academy Seminar Series 2009
Bagadilico Retreat, Åhus, 2009
Swedish Parkinson Academy Seminar Series 2010
Translational Neuroscience Course, Lund University, 2011

Personal Tutoring / Supervision:

Research Student Meinie Seelen (2010)
Research Student Emil Ygland (2011)
Psychiatry resident Dr. Sofie Westling (2011)

Peer Reviewing for Neurological Journals

Parkinsonism & Related Disorders
Neurology
European Journal of Neurology
Neurodegenerative Diseases
PLoS ONE
Acta Neurologica Scandinavica

Member of Steering Committee in Research Environment:

MultiPark [A strategic research area at Lund University funded by the Swedish Research Council](April 2010 to Oct 2011)

Courses Attended

Course Program for Physicians in Clinical Research at Lund University Hospital (total 3 weeks, 2007 and 2008):

- Communication in the Biomedical Sciences
- Oral Presentation Techniques
- Statistical Methods in Medical Research

Introduction Course Doctoral Students at the Medical Faculty, Lund University (2008)

Ethics of Research (2008)

Introduction to Teaching in Tertiary Education (1 week, 2011)

Courses For Neurology Residents

Geriatric Psychiatry and Dementia Disorders (1 week, 2007, Lund, Sweden)

Cerebrovascular Disorders (1 week, 2007, Lund, Sweden)

Epilepsy in children and adults (1 week, 2007, Uppsala)

Heredity of Diseases and Genetic Counselling (3 days, 2008, Lund, Sweden)

Severe Headaches and Cranial Neuralgias (1 week, 2009, Gothenborg, Sweden)

Multiple Sclerosis (2 days, 2009, Hindås, Sweden)

General Courses for Residents

STyrkelyftet VII [A developmental program for residents at Lund University Hospital] (total, 4 weeks, 2006-2008), including:

- Group Psychology
- Understanding Organizations
- Communication
- Leadership – Team membership [Ledarskap – medarbetarskap]
- Developmental work [Medarbetarskap]
- Ethics and Values
- Personal Development

Pedagogics for Residents' Tutoring (2007)

Course for Specialists in Movement Disorders:

Scandinavian Movement Disorder (SCANDMODIS) Specialist Education 2011-2013
(ongoing, total 3 weeks)

References

References are available on request.