

**Outi Salminen**, Ph.D., docent (adjunct professor) in Pharmacology, currently holds both a University Lecturer and Principal Investigator position in Faculty of Pharmacy, Division of Pharmacology and Pharmacotherapy, University of Helsinki. During her research career she has investigated the central nervous system effects of nicotine and currently she leads Academy of Finland research project on nicotine and levodopa-induced dyskinesia in Parkinson Disease. She was a senior researcher in Academy of Finland-funded Consortium Substance Use and Addiction where behavioural and molecular mechanisms on nicotine were studied.

### **1 Full name and date**

Salminen, Outi Susanna (female)  
date CV made: 26.11.2015

### **2 Date and place of birth, nationality, current place of residence**

13.7.1965, Ylihärmä  
nationality: Finnish  
Taavetti Laitisen katu 7 C 29, 00300 Helsinki

### **3 Education and degrees awarded**

16.9.2000 Ph. D. in Pharmacy,  
Subject area: (neuro)pharmacology  
Department of Pharmacy, Division of Pharmacology and Toxicology, (currently  
Faculty of Pharmacy; Division of Pharmacology and Pharmacotherapy),  
Viikinkaari 5 E, 00014 University of Helsinki

18.9.1998 Licentiate in Pharmacy (Lic. Pharm.)  
Department of Pharmacy, University of Helsinki

16.5.1991 M.Sc. in Pharmacy (major: Pharmacology)  
Department of Pharmacy, University of Helsinki

4.6.1987 B. Sc. In Pharmacy, Department of Pharmacy, University of Helsinki

Title of docent: pharmacology, University of Helsinki 19.6.2008

### **4 Other education and training, qualifications and skills**

See item 9

### **5 Languages**

mother tongue: Finnish  
other languages: English (Cambridge Proficiency Exam-certificate 14.6.2007 grade B.  
Corresponds with highest EU level of competence C2)

### **6 Current position**

1.9.2009 -> University Lecturer, Division of Pharmacology and Pharmacotherapy, Faculty of Pharmacy, University of Helsinki, Finland  
. 40% research, 40% teaching, 20% administration  
Research career stage: Principal Investigator, Faculty of Pharmacy

## **7 Previous work experience**

1.8.2005 – 31.8.2009 Management Coordinator, full time  
Protein Kinase Research-EU project, Faculty of Pharmacy, University of Helsinki  
1.8.2001 – 30.6.2005 Research Associate  
Institute for Behavioral Genetics, University of Colorado, Boulder, Colorado, USA  
1991 – 7/2004 Research Assistant  
Department of Pharmacy, Division of Pharmacology and Toxicology, University of Helsinki

Career breaks:

Parental leaves: 1995-1996 12 months, 1998-1999 14 months

During my appointment for Management Coordinator 2005-2009, I was not able to do active research full time.

## **8 Research funding, leadership and supervision**

Academy of Finland, Salminen O (PI): Distinct nicotinic acetylcholine receptors in dorsal and ventral striatum: Basis for novel therapies of Parkinson's disease, 433 299 €, 1.9.2013 – 31.8.2017

University of Helsinki 3-year grant, Salminen O (PI) Nicotine-opioid interactions – molecular mechanisms and brain neurochemistry, 130 000 €, 1.1.2012 – 31.12.2014

Academy of Finland-funded Consortium Substance Use and Addiction, Tuominen Raimo, (PI), Outi Salminen senior researcher 299 000 €, Behavioral and molecular mechanisms of nicotine addiction, Russian partner prof. Edwin Zvartau , Moscow, years 2006-2010

Personal grants:

Colorado Tobacco Research Program grant 3F-034, years 2004-2005

title: Presynaptic Nicotinic Receptor Subtypes in Dopamine Release

Emil Aaltonen Foundation: two-year Young Investigator Award for post doctoral research at University of Colorado at Boulder, years 2003-2005

Academy of Finland: one-year grant for post doctoral research at University of Colorado at Boulder, year 2003

Supervision of doctoral students (principal supervision):

M. Sc. Reeta Talka, estimated year of thesis defence 2016

M.Sc. Sakari Leino estimated year of thesis defence 2018

M.Sc. Sini Nousiainen estimated year of thesis defence 2020

Supervision of 13 M.Sc. in Pharmacy students

Member of four Ph.D. student follow-up groups

## 9 Merits in teaching and pedagogical competence

University Pedagogy I 10 credit units, 2006

University Pedagogy II 15 credit units, 2007-2008

University Pedagogy III 35 credit units, 2011-2013

- . These 60 credit units of pedagogical training led to the status of **the qualified teacher in higher education**, awarded by University of Helsinki in 2013

**Member of Teachers' Academy**, University of Helsinki, 2014 –

Criteria for selecting the members:

<http://www.helsinki.fi/opettajienakatemia/eng/criteria.html>

This included personal prize of 20 000 €, and prize for the pharmacology subject 30 000 €

## 10 Awards, prizes and honours see above

## 11 Other scientific or academic merits

- service as a pre-examiner of a doctoral dissertation

2014 Katja Näreoja, Muscarinic toxins: Characterization of adrenoceptor binding and applicability of membrane anchoring via glycosylphosphatidylinositol tail, Åbo Akademi University, Turku, Finland

2015 Milica Maximovic, Behavioural and pharmacological characterization of a mouse model for psychotic disorders focus on glutamatergic transmission, Faculty of Medicine, U of Helsinki

- memberships and positions of trust in scientific and scholarly societies

Society for Research on Nicotine and Tobacco in Europe, Board member 2012-2015

Lääkietutkimussäätiö (Drug research foundation), Board member

Neuroscience Center (University of Helsinki) Board, vice-member

Society of Neuroscience, member

Finnish Pharmacological Society, member

Brain Research Society of Finland, member

- membership in national or international expert groups, evaluation or steering committees, as well as other expert duties

The Pharmaceutical Learning Centre, Board member

Current Care Guidelines –member of a workgroup preparing a guideline for self-medication

Finland Smoke Free by 2040-network, member of the Scientific Advisory Board

Pfizer, member of Scientific Advisory Board 2014-2015

- referee for scientific and scholarly journals

15 referee assignments (British Journal of Pharmacology, Basic & Clinical Pharmacology & Toxicology, Neuroscience Letters, Neuroscience, The Journal of Physiological Sciences)

- administrative responsibilities at higher education institutions or at research organisations,

responsibilities in the higher education community  
Member of Faculty Council, Faculty of Pharmacy  
Member of Academic Affairs Committee, Faculty of Pharmacy  
Member of Bachelor thesis steering group 2012 -, Faculty of Pharmacy  
Member of the planning group for developing the new curriculum content for Bachelor level studies 2012-2014, Faculty of Pharmacy  
Strand leader (Patient and Pharmacotherapy) 2013-, Faculty of Pharmacy

## **12 Societal impact of research**

Participated in a hearing in the Parliament as an expert during the preparation of the smoking law in 2013  
Organized of two press conferences, one in connection with the Helsinki Drug Research 2008 congress, and other during the final meeting of Protein Kinase research EU project  
Two radio interviews, one concerning own Ph.D. thesis, one concerning the Academy of Finland Research program "Drugs of Abuse and addiction"  
Several press releases

## **13 Positions of trust in society and other societal merits**

significant societal positions of trust, expert duties and assignments (also scientific policy advice tasks) , see items 11 and 12

## **14 Other merits**

Most cited scientific publications:

**Salminen** O, Murphy KL, McIntosh JM, Drago J, Marks MJ, Collins AC and Grady SR (2004) Subunit composition and pharmacology of two classes of striatal presynaptic nicotinic acetylcholine receptors mediating dopamine release in mice. *Molecular Pharmacology* 65:1526–1535 **Citations 286**

Cui C, Booker TK , Allen RS, Grady SR, Whiteaker P, Marks MJ, **Salminen** O, Tritto T, Butt CM, Allen WR, Stitzel JA, McIntosh JM, Boulter J, Collins AC and Heinemann SF (2003) The  $\beta$ 3 nicotinic receptor subunit: A component of  $\alpha$ -Conotoxin MII-binding nicotinic acetylcholine receptors that modulate dopamine release and related behaviors. *Journal of Neuroscience* 23(35):11045–11053 **Citations 146**

Grady SR, **Salminen** O, Lavery DC, Whiteaker P, McIntosh JM, Collins AC, Marks MJ (2007) The subtypes of nicotinic acetylcholine receptors on dopamine terminals of mouse striatum. Review. *Biochemical Pharmacology*, 74: 1235 -1246. **Citations 133**