Curriculum vitae of Pierre Mattar

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Overview

I am an expert in understanding the transcriptional programs that control neurogenesis in the developing nervous system, focusing on retinal development. I have more than 15 years of research experience, with emphasis on development, genetics, epigenetics, neuroscience, stem cells, and molecular biology. My research goal is to understand how neural cell diversity is generated and maintained.

Academic Appointments

Scientist **2017 – present**
Ottawa Hospital Research Institute, Ottawa, Ontario, Canada
Regenerative Medicine Program
Clifford, Gladys and Lorna J. Wood Chair for Research in Vision

Assistant Professor **2017 – present**
University of Ottawa, Ottawa, Ontario, Canada
Department of Cellular and Molecular Medicine

Education and Training

Post-Doctoral Fellow, Cellular Neurobiology **2010 – 2017**
Institut de recherches cliniques de Montréal, Montréal Québec, Canada
Supervisor : Dr. Michel Cayouette

PhD Biochemistry & Molecular Biology **2003 – 2009**
University of Calgary, Calgary Alberta, Canada
Supervisor: Dr. Carol Schuurmans
Thesis: Coordinate regulation of neocortical cell fate decisions by bHLH transcription factors and growth factor signaling.

MSc Microbiology and Immunology **1999 – 2003**
Western University, London Ontario, Canada
Supervisor: Dr. Gregory A. Dekaban
Thesis: Constructs Interfering with N-Methyl-D-Aspartate Receptors.

BSc (Hons) Genetics, With Distinction **1994 – 1999**
Western University, London Ontario, Canada

Scholarships and Fellowships

- CIHR Postdoctoral Fellowship ($40 000 Per Annum) 2010-2013
- FRSQ Postdoctoral Fellowship ($30 000 PA - Declined) 2010-2012
- Dr. Lionel E. McLeod Health Doctoral Research Scholarship (AHFMR) ($21 500 PA) 2007-2008
- Honorary Izaak Walton Killam Memorial Doctoral Scholarship ($5000 PA) 2007-2009
- Heart and Stroke Foundation Doctoral Research Scholarship ($21 000 PA) 2007-2009
- CIHR Training Program in Genetics Child Development & Health Studentship (U of C) ($5000) 2007
- CIHR, Canada Graduate Scholarship ($35 000 PA) 2005-2007

- AHFMR Studentship Incentive Award ($7000 PA) 2004-2006
- Province of Alberta Graduate Fellowship ($15 000 - Declined) 2004
- CIHR Institute of Genetics Doctoral Research Award ($ 21 000) 2004
- Ontario Neurotrauma Foundation-Rick Hansen Society Studentship ($ 20 000 PA) 2000-2002
- Ontario Graduate Scholarship ($12 000 PA - Declined) 2000-2001
- Christina McKerracher Scholarship (Western) ($1600) 1994

Prizes and Awards

- CIHR Institute of Neuroscience, Mental Health and Addiction - Brain Star Finalist ($1500) 2016
- Poster Prize, Canadian Society for Developmental Biology 2016
- Prix Reseau Vision Award for best research paper (Réseau de recherche en santé de la vision du FRQS) ($250) 2015
- Prix Vertex Poster Award (IRCM) ($700) 2014
- Prix du FRSQ Award for Oral Presentation (IRCM) ($700) 2013
- Prix Pfizer Canada Poster Award (IRCM) ($1000) 2011
- Gordon Dixon Award for Meritorious Doctoral Research (U of C) ($500) 2010
- Dr. Floyd F. Snyder Award in Research Excellence Poster Award (U of C) ($100) 2007
- Cooper Award for course grades (U of C) ($100) 2005
- Dean's Research Excellence Award (U of C) ($3000) 2004
- Dean's Honor List (UWO) 1995,1998,1999

Grants

- Programming and reprogramming for retinal ganglion cell replacement therapy $75 000
  Ontario Institute for Regenerative Medicine 2018-2019

- Molecular Mechanisms regulating temporal identity in neural progenitors Funds held: $0
  CIHR Project Grant (trainee co-applicant) 2016 – 2021

Supervision

Primary Supervisor

- Ivana Nad (PhD Student) Autumn 2017 – Present
- Sujay Shah (PhD Student) Autumn 2016 – Present
- Whitney Carter (Undergraduate Student) Spring 2018 – Present
- Aditi Sivakumar (Undergraduate Student) Autumn 2017 – Present
- Blessy Mikhail (Undergraduate Student) Autumn 2017 – Spring 2018

Secondary Supervisor

- Milanka Stevanovic (MSc Student) Autumn 2016 – Summer 2017
- Milanka Stevanovic (Undergraduate Student) Autumn 2015 – Summer 2016
- Milanka Stevanovic (Stagiaire CÉGEP) Autumn 2012 – Summer 2013
- Adele Tufford (PhD Rotation Student) Summer 2012
- Kimia Ghavami (Grade 11 Student) Summer 2008
- Salma Shivji (Undergraduate Student) Summer 2006
- Christine Johannes (Undergraduate Student) Summer 2003, 2004
- Amy Lee (Grade 11 Student) Summer 2000

Teaching Experience

Teaching

- Guest Lecture and lab demonstration, "Transduction de tissus nerveux (rétine) par vecteur rétroviral et mise en culture d'explants" BIM6071, "Pratique en recherche translationnelle". Médicine cellulaire et moléculaire, Programmes d'études supérieures de biologie moléculaire de l'Université de Montréal, 2013.
- Teaching Assistant, MDSC 402, "Organismal Biology". Bachelor of Health Sciences undergraduate program, Faculty of Medicine, University of Calgary, 2008.
- Guest Lecture, "Signalling Pathways in Development and Disease". MDSC 402, "Organismal Biology". Bachelor of Health Sciences undergraduate program, Faculty of Medicine, University of Calgary, 2008.

Administrative Activities

Committees

- Finance Committee, Department of Cellular and Molecular Medicine 2018
- Student Representative, Genes and Development Research Group. 2004-2007
- Student Symposium Organizing Committee (7 members) 2005-2007
  "Stem Cells – The Future of Biomedical Science".

Conferences

- Volunteer: Society for Developmental Biology 71st Annual Meeting, Montréal QC. July 19-23, 2012.
- Volunteer: 12th Annual McGill Biomedical Conference. Montréal QC. February 16, 2012.
- Volunteer: Alberta Vision Sciences Symposium. Calgary AB. Oct. 3-4, 2008.
- Volunteer: Society for Developmental Biology 63rd Annual Meeting, Calgary AB. July 24-25, 2004.
- Volunteer: 2nd Canadian Developmental Biology Symposium, Banff AB. April 3-4, 2004.

Invited Lectures

1. **Mattar P**, Cayouette M. Characterizing new players the control progenitor potential in the retina. Invited Lecture. 10th Anniversary Sprott Centre Symposium. May 9th, 2017.

2. **Mattar P**, Cayouette M. Programming and reprogramming neural progenitors in the developing retina. Invited Lecture. External Speaker Series, Neuroscience Program, OHRI and uOttawa Brain and Mind Research Institute, University of Ottawa. Mar. 28th, 2017.

3. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. A Conserved Regulatory Logic Controls Temporal Identity in Mouse Neural Progenitors. Invited lecture. Canadian Associate for Neuroscience 10th Annual Meeting. Toronto ON. June 1st, 2016. Oral Presentation – Plenary Session.

4. **Mattar P**, Cayouette M. Regulation of progenitor potential and heterochromatin organization by the transcription factor Casz1. Invited lecture. Neural Stem Cell Institute. Rensselaer N.Y. Dec. 4th, 2015.

5. **Mattar P**, Cayouette M. Regulation of progenitor potential and heterochromatin organization by the transcription factor Casz1. Invited lecture – Assistant Professor Search Committee. Department of Cellular and Molecular Medicine, University of Ottawa. Nov. 24th, 2015.

6. **Mattar P**, Cayouette M. Regulation of progenitor potential and heterochromatin organization by the transcription factor Casz1. Invited lecture – Assistant Professor Search Committee. Département d'ophtalmologie, Université Laval. Québec QC. Nov. 13th, 2015.

7. **Mattar P**, Cayouette M. Transcriptional control of progenitor potential in the developing retina. Invited lecture – Assistant Professor Search Committee. Department of Cell and Molecular Biology, Umeå University, Umeå Sweden. Oct. 23rd, 2015.

8. **Mattar P**, Cayouette M. *Casz1* controls temporal identity by regulating heterochromatin formation and organization. Invited speaker. Retreat - Caren Norden Laboratory. Max Planck Institute for Cell Biology and Genetics, Dresden Germany. 11:30-12:15. May 17th, 2015.

9. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. A conserved regulatory logic controls the temporal competence of retinal progenitors. Réseau de recherche en santé de la vision du FRQS. 20e Réunion Annuelle. 9:50-10:00. Montréal QC. Nov. 28th 2014.

10. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. *Casz1* controls late temporal identity in mouse retinal progenitors. Oral Presentation. Gordon Research Conferences – Visual Systems Development. Barga Italy.18:40-19:10. May 26th, 2014. Oral Presentation – Plenary Session.

Research Papers

†Denotes equal authorship

1. Tufford AR, Onyak JR, Sondereker KB, Lucas JA, Earley AM, **Mattar P**, Hattar S, Schmidt TM, Renna JM, Cayouette M. Melanopsin retinal ganglion cells regulate cone photoreceptor lamination in the mouse retina. *Cell Reports* 2018. In Press.

2. DeGeer J, Kaplan A, **Mattar P**, Morabito M, Stochaj U, Kennedy TE, Debant A, Cayouette M, Fournier AE, Lamarche-Vane N. Hsc70 chaperone activity underlies Trio GEF function in axon growth and guidance induced by netrin-1. *J Cell Biol*. 2015 Aug 31;210(5):817-32. http://www.ncbi.nlm.nih.gov/pubmed/26323693

3. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. A Conserved Regulatory Logic Controls Temporal Identity in Mouse Neural Progenitors. *Neuron*. 2015 Feb. 4; 85(3): 497-504. http://www.ncbi.nlm.nih.gov/pubmed/25654255

4. Li S†, **Mattar P**†, Dixit R†, Lawn SO, Wilkinson G, Kinch C, Eisenstat D, Kurrasch DM, Chan JA, Schuurmans C. RAS/ERK Signaling Controls Proneural Genetic Programs in Cortical Development and Gliomagenesis. *J Neurosci*. 2014 Feb 5; 34(6):2169-90. http://www.ncbi.nlm.nih.gov/pubmed/24501358

5. Kovach C, Dixit R, Li S, **Mattar P**, Wilkinson G, Elsen GE, Kurrasch DM, Hevner RF, Schuurmans C. Neurog2 Simultaneously Activates and Represses Alternative Gene Expression Programs in the Developing Neocortex. *Cereb Cortex*. 2013 Aug;23(8):1884-900. http://www.ncbi.nlm.nih.gov/pubmed/22735158

6. Kechad A, Jolicoeur C, Tufford A, **Mattar P**, Chow R, Harris W, Cayouette M. Numb is required for the production of terminal asymmetric cell divisions in the developing mouse retina. *J Neurosci*. 2012 Nov 28; 32(48):17197-210. http://www.ncbi.nlm.nih.gov/pubmed/23197712

7. Li S†, **Mattar P**†, Zinyk D, Singh K, Chaturvedi CP, Kovach C, Dixit R, Kurrasch DM, Ma YC, Chan JA, Wallace V, Dilworth FJ, Brand M, Schuurmans C. GSK3 Temporally Regulates Neurogenin 2 Proneural Activity in the Neocortex. *J Neurosci*. 2012 Jun 6;32(23):7791-805. http://www.ncbi.nlm.nih.gov/pubmed/22674256

8. Dixit R, Zimmer C, Waclaw RR, **Mattar P**, Shaker T, Kovach C, Logan C, Campbell K, Guillemot F, Schuurmans C. Ascl1 participates in Cajal-Retzius cell development in the neocortex. *Cereb Cortex*. 2011 Nov;21(11):2599-611. http://www.ncbi.nlm.nih.gov/pubmed/21467208

9. Watson ED, **Mattar P**, Schuurmans C, Cross JC. Neural stem cell self-renewal requires the Mrj co-chaperone. 2009 *Dev Dyn*. Oct;238(10):2564-74. http://www.ncbi.nlm.nih.gov/pubmed/19777589

10. **Mattar P**, Langevin LM, Markham K, Klenin N, Shivji S, Zinyk D, Schuurmans C. bHLH transcription factors cooperate to specify a cortical projection neuron identity. *Mol Cell Biol*. 2008 Mar;28(5):1456-69. http://www.ncbi.nlm.nih.gov/pubmed/18160702

11. Langevin LM, **Mattar P**, Scardigli R, Roussigne M, Logan C, Blader P, Schuurmans C. Validating in utero electroporation for the rapid analysis of gene regulatory elements in the murine telencephalon. *Dev Dyn*. 2007 May;236(5):1273-86. http://www.ncbi.nlm.nih.gov/pubmed/17377980

12. Britz O[†], **Mattar P[†]**, Nguyen L, Langevin LM, Zimmer C, Alam S, Guillemot F, Schuurmans C. A role for proneural genes in the maturation of cortical progenitor cells. *Cereb Cortex*. 2006 Jul;16 Suppl 1:i138-51. http://www.ncbi.nlm.nih.gov/pubmed/16766700

13. Hand R, Bortone D, **Mattar P**, Nguyen L, Heng JI, Guerrier S, Boutt E, Peters E, Barnes AP, Parras C, Schuurmans C, Guillemot F, Polleux F. Phosphorylation of Neurogenin2 Specifies the Migration Properties and Dendritic Morphology of Pyramidal Neurons in the Neocortex. *Neuron*. 2005 Oct. 6; 48(1):45-62. http://www.ncbi.nlm.nih.gov/pubmed/16202708

14. **Mattar PA**, Holmes KD, Dekaban GA. The NR1-4 C-terminus interferes with N-methyl-D-aspartate receptor-mediated excitotoxicity: evidence against a typical T/SXV-PDZ interaction. *Neuroscience*. 2005;132(2):281-98. http://www.ncbi.nlm.nih.gov/pubmed/15802183

15. **Mattar PA**, Britz O, Johannes C, Nieto M, Ma L, Rebeyka A, Klenin N, Polleux F, Guillemot F, Schuurmans CJ. A screen for downstream effectors of *Neurogenin2* in the embryonic neocortex. *Dev Biol*. 2004 Sep 15;273(2):373-89. http://www.ncbi.nlm.nih.gov/pubmed/15328020

16. **Mattar PA**, Holmes KD, Dekaban GA. An antisense construct reduces NR2A expression and *N*-methyl-D-aspartate receptor activity as determined using a novel flow cytometric approach. *J Neurosci Res.* 2003 Oct; 78(4): 782-793. http://www.ncbi.nlm.nih.gov/pubmed/14635230

17. Holmes KD, **Mattar P**, Marsh DR, Jordan V, Weaver LC, Dekaban GA. The C-terminal C1 cassette of the *N*-methyl-D-aspartate receptor 1 subunit contains a bi-partite nuclear localization sequence. *J Neurochem*. 2002 Jun;81(6):1152-65. http://www.ncbi.nlm.nih.gov/pubmed/12068064

18. Holmes KD, **Mattar PA**, Marsh DR, Weaver LC, Dekaban GA. The *N*-methyl-D-aspartate receptor splice variant NR1-4 C-terminal domain. Deletion analysis and role in subcellular distribution. *J Biol Chem*. 2002 Jan 11;277(2):1457-68. http://www.ncbi.nlm.nih.gov/pubmed/11700309

Literature Reviews and Previews

[‡]Denotes corresponding authors

1. Adnani L, Han S, Li S, **Mattar P[‡]**, Schuurmans C[‡]. Mechanisms of cortical differentiation. *International Review of Cell and Molecular Biology*. 2017 May 18. Volume 332. https://www.elsevier.com/books/international-review-of-cell-and-molecular-biology/galluzzi/978-0-12-812471-0

2. **Mattar P‡**, Cayouette M‡. Mechanisms of temporal identity regulation in mouse retinal progenitor cells. *Neurogenesis*. 2015 Dec. 2:1, e1125409. http://www.tandfonline.com/doi/full/10.1080/23262133.2015.1125409

3. **Mattar P‡**, Cayouette M‡. Temporal Control of Neural Progenitors: TGF-β Switches the Clock Forward. *Neuron*. 2014 Dec. 3; 84(5): 885-888. http://www.ncbi.nlm.nih.gov/pubmed/25475182

4. Cayouette M, **Mattar P**, Harris WA. Progenitor competence: genes switching places. *Cell*. 2013 Jan 17; 152(1-2):13-4. http://www.ncbi.nlm.nih.gov/pubmed/23332742

Book Chapters

1. Touahri Y, Adnani L, **Mattar P**, Markham K, Klenin N, Schuurmans C. Non-isotopic RNA In Situ Hybridization on Embryonic Sections. *Curr Protoc Neurosci*. 2015 Jan 5;70:1.22.1-1.22.25. http://www.ncbi.nlm.nih.gov/pubmed/25559002

2. Kovach C, **Mattar P**, Schuurmans C. Epigenetics in the developing nervous system. Invited Book chapter. "*Epigenetics. Linking Genotype and Phenotype in Development and Evolution*". © University of California Press 2011. pp. 137-163.

Conference Presentations

1. **Mattar P**, Stevanovic M, Cayouette M. Casz1 controls progenitor competence by regulating heterochromatin organization. 8th Canadian Society for Developmental Biology Conference. Banff, AB. March 17-20th, 2016. Poster #30.

2. **Mattar P**, Stevanovic M, Cayouette M. Casz1 controls progenitor competence by regulating heterochromatin organization. Satellite Symposium on Forebrain Neurogenesis: From Embryo to Adult. Banff, AB. March 16-17th, 2016. Poster #17.

3. **Mattar P**, Wilkinson G, Blackshaw S, Schuurmans C, Cayouette M. Casz1 controls heterochromatin inversion in photoreceptor cells. Wellcome Trust Waddington Symposium. Epigenetics in dialogue with the genome. Our Dynamic Earth, Edinburgh Scotland. June 1-5th, 2015. Poster #65.

4. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. A conserved regulatory logic controls the temporal competence of retinal progenitors. Réseau de recherche en santé de la vision du FRQS. 20e Réunion Annuelle. Oral Presentation. 9:50-10:00. Montréal QC. Nov. 28th 2014. Oral Presentation.

5. **Mattar P**, Ericson J, Blackshaw S, Cayouette M. *Casz1* controls late temporal identity in mouse retinal progenitors. Gordon Research Conferences – Visual Systems Development. Renaissance Tuscany Il Ciocco Resort, Barga Italy. May 25-30th, 2014. Poster Presentation.

6. **Mattar P**, Blackshaw S, Cayouette M. A mouse homolog of the *Drosophila* temporal identity gene *Castor* regulates the maturation of retinal progenitor cells. Cell Symposia: Genes, Circuits & Behavior. Sheraton Centre Toronto Hotel, Toronto, Canada. June 2-4, 2013. Poster Presentation.

7. **Mattar P**, Blackshaw S, Cayouette M. A role for *Casz1*, a homolog of the *Drosophila* cell fate determination gene *Castor*, in murine retinal development. Society for Neuroscience, Washington, DC, USA. October 13-17, 2012. Abstract# 231.22/A48. Poster Presentation.

8. **Mattar P**, Blackshaw S, Cayouette M. A role for *Casz1*, a homolog of the *Drosophila* cell fate determination gene *Castor*, in murine retinal development. Gordon Conference on Visual Systems Development, New London, NH, USA. August 19-24, 2012. Poster Presentation.

9. **Mattar P**, Blackshaw S, Cayouette M. A role for *Casz1*, a homolog of the *Drosophila* cell fate determination gene *Castor*, in murine retinal development. Society for Developmental Biology 71st Annual Meeting, Montréal, QC, Canada. July 19-23, 2012. Abstract #460. Poster Presentation.

10. S. Li, P. **Mattar P**, D. Zinyk, K. Singh, C.-P. Chaturvedi, R. Dixit, C. Kovach, J. Chan, V. Wallace, Y. Ma, J. Dilworth, M. Brand, C. Schuurmans. GSK3 temporally regulates Neurogenin 2 proneural activity in the neocortex. Society for Neuroscience, Washington, DC, USA. November 12-16, 2011. Abstract# 434.06/A18. Poster Presentation.

11. **Mattar P**, Schuurmans C. Two mechanisms for inhibition of bHLH function by Ras-ERK signaling in the developing neocortex. EMBO Workshop on bHLH Transcription Factors. London, UK. May 7-8, 2009. Poster Presentation.

12. Kovach C, **Mattar P**, Schuurmans C. Dissecting NeuroG2 function in neuronal fate specification in the neocortex. EMBO Workshop on bHLH Transcription Factors. London, UK. May 7-8, 2009. Poster Presentation.

13. **Mattar P**, Zinyk D, Wallace VA, Schuurmans C. Temporal control of *Neurogenin 2* cortical determination activity via GSK3ß. Stem Cell Network, Annual General Meeting. Vancouver, British Columbia, Canada. Nov. 5-7, 2008. Abstract #85. Poster Presentation.

14. Kovach C, **Mattar P**, Schuurmans C. Dissecting NeuroG2 function in neuronal fate specification in the neocortex. Stem Cell Network Annual General Meeting. Vancouver, BC. Nov. 5-7, 2008. Poster Presentation.

15. Kovach C, **Mattar P**, Schuurmans C. Dissecting NeuroG2 function in neuronal fate specification in the neocortex. Mouse Genetics & Genomics: Development & Disease. Cold Spring Harbor Laboratory, New York, USA. Oct. 29-Nov. 2, 2008. Poster Presentation.

16. **Mattar P**, Langevin LM, Markham K, Klenin N, Shivji S, Schuurmans C. Basic-helix-loop-helix transcription factors cooperate to specify the identity of cortical projection neurons. Alberta Vision Sciences Syposium. University of Calgary. Oct. 3-4, 2008. Poster Presentation.

17. **Mattar P**, Zinyk D, Wallace VA, Schuurmans C. Temporal control of *Neurogenin 2* cortical determination activity via GSK3ß. Gordon Conference on Neural Development. Salve Regina University, Newport, RI, USA. Aug. 17-22, 2008. Poster Presentation.

18. **Mattar P**, Zinyk D, Wallace VA, Schuurmans C. Temporal control of *Neurogenin 2* cortical determination activity via GSK3ß. Cortical Development. Chania, Greece. May 23rd, 2008. Poster Presentation.

19. **Mattar P**, Langevin LM, Markham K, Klenin N, Shivji S, Zinyk D, Schuurmans C. bHLH transcription factors cooperate to specify a cortical projection neuron identity. 4th Canadian Developmental Biology Conference. Banff, AB, Canada. Feb. 28-Mar. 1, 2008. Poster Presentation.

20. Kovach C, **Mattar P**, Schuurmans C**.** Dissecting Ngn2 function in neuronal fate specification in the neocortex. 4th Canadian Developmental Biology Conference. Banff, AB, CANADA. Feb. 28-Mar. 1, 2008. Poster Presentation.

21. **Mattar P**, Langevin LM, Markham K, Klenin N, Shivji S, Schuurmans C. Basic-helix-loop-helix transcription factors cooperate to specify the identity of cortical projection neurons. Stem Cell Network, Annual General Meeting. Toronto, Ontario, Canada. Nov. 13-15 2007. Abstract #43. Poster Presentation.

22. **Mattar P**, Langevin LM, Markham K, Klenin N, Shivji S, Schuurmans C. Basic-helix-loop-helix transcription factors cooperate to specify the identity of cortical projection neurons. FEBS Workshop on Generating Neural Diversity in the Brain. Capri, Italy. Oct. 13-16, 2007. Abstract #73. Poster Presentation.

23. **Mattar P**, Klenin N, Schuurmans C. GSK3β regulates developmental timing in the neocortex by controlling *Neurogenin 2* activity. EMBL Meeting on Chromatin and Epigenetics. EMBL, Heidelberg, Germany. May 3-6, 2007. Poster Presentation.

24. **Mattar P**, Langevin LM, Klenin N, Schuurmans C. Characterization Of Neurogenin 2-Regulated Transcriptional Cascades In The Telencephalon. Stem Cell Network, Annual General Meeting. Ottawa, Ontario, Canada. Nov. 13-15 2006. Poster Presentation.

25. **Mattar PA**, Langevin L, Klenin N, Schuurmans CJ. Characterization Of Neurogenin 2-Regulated Transcriptional Cascades In The Telencephalon. 16th Biennial Meeting of the International Society for Developmental Neuroscience. Banff, Alberta, Canada. August 24–28. 2006. Abstract number 154. Poster Presentation.

26. Langevin LM, Roussigné M, **Mattar P**, Scardigli R, Logan C, Blader P, Schuurmans C. Evolutionary comparison of *ER81* regulatory sequences responsible for cerebral-specific gene expression in mouse and zebrafish. 16th Biennial Meeting of the International Society for Developmental Neuroscience. Banff, AB, Canada. Aug. 24-28, 2006. Poster Presentation.

27. **Mattar PA**, Langevin L, Klenin N, Schuurmans CJ. Neurogenin 2 is both required and sufficient to specify a dorsal telencephalic identity. Stem Cell Network, Annual General Meeting, Calgary, Alberta, Canada. Nov. 23-25 2005. Poster Presentation.

28. **Mattar PA**, Langevin L, Klenin N, Schuurmans CJ. Neurogenin 2 is both required and sufficient to specify a dorsal telencephalic identity. 15'th International Society of Developmental Biologists Congress 2005. Sydney, Australia. Sept. 3-7, 2005. *Mech Dev* 2005 Sept.;122(Suppl.1):S41. Abstract No. 01-P032. Poster Presentation.

29. Hand R, Bortone D, **Mattar P**, N'Guyen L, Heng J, Boutt E, Peters E, Barnes AP, Gradwohl G, Schuurmans C, Guillemot F, Polleux F. Neurogenin2 specifies the radial migration properties and the pyramidal dendritic morphology of cortical neurons. Cortical Development. Santorini, Greece. May 15, 2005. Poster Presentation.

30. Schuurmans C, Britz O, **Mattar P**, Langevin L-M, Alam S, Nguyen L, Guillemot F. Proneural genes are expressed and function in a distinct manner at early and late stages of corticogenesis. Cortical Development. Santorini, Greece. May 12-15, 2005. Poster Presentation.

31. **Mattar PA**, Britz O, Alam S, Langevin L-M, Guillemot F, Schuurmans CJ. Proneural genes regulate the cellular behaviour of cortical progenitors. Stem Cell Network, Annual General Meeting. Montreal, Quebec, Canada. Nov. 3-6, 2004. Poster Presentation.

32. **Mattar PA**, Britz O, Johannes C, Nieto M, Ma L, Klenin N, Guillemot F, Schuurmans CJ. A screen for novel genes downstream of *Neurogenin 2* in the developing neocortex. Society for Developmental Biology 63rd Annual Meeting. Calgary, AB, Canada. July 24-25, 2004. Abstract No. 161. Poster Presentation.

33. **Mattar PA**, Britz O, Johannes C, Nieto M, Ma L, Rebeyka A, Klenin N, Guillemot F, Schuurmans CJ. A screen for novel genes downstream of *Neurogenin 2* in the developing neocortex. 2nd Canadian Developmental Biology Symposium. Banff, AB, Canada. April 3, 2004. Abstract No. 10. Poster Presentation.

34. Bruce J, Holmes KH, **Mattar PA**, Weaver LC, Dekaban GA. Systems for Visualizing *N*-methyl-D-aspartate Receptor Intracellular Distribution, Surface Expression, and Channel Function in Living Cells. 31st Annual Meeting of the Society for Neuroscience. San Diego, CA, USA. November 10-15, 2001. *Society for Neuroscience Abstracts* 27 (1): Abstract No. 80. Poster Presentation.

35. Holmes KD, **Mattar PA**, Marsh DR, Hachinski V, Weaver LC, Dekaban GA. The role of C-terminal domains in the subcellular distribution of NMDA receptor subunits NR1-2, NR1-4 AND NR2D. 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 4-9, 2000. *Society for Neuroscience Abstracts* 26 (1-2): Abstract No. 717.1. Poster Presentation.

36. Sharma V, Kueneman K, Bhayana B, **Mattar P**, Persad E. The effect of pregnancy on the course of bipolar disorder. Canadian Psychiatric Association Annual Meeting. Calgary, AB, Canada. September 17, 1997. Poster Presentation.

37. Sharma V, Kueneman K, Bhayana B, **Mattar P**, Persad E. The course of bipolar disorder during pregnancy. American Psychiatric Association Annual Meeting, San Diego CA USA. May 12, 1997, Abstract No. NR411. Poster Presentation.