

Albert Gidon

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EDUCATION

- 2012 – Today Neurocure. Campus Mitte - Charitéplatz 1, 10117 Berlin
 Postdoctoral fellow, Supervisor: Prof. Matthew E. Larkum.
 Research on synergistic impact of inhibitory neurons.
- 2007 – 2012 Dept. of Neurobiology, Hebrew University, Jerusalem, Israel.
 Ph.D. student, Supervisor: Prof. Idan Segev.
 On the subject “Synaptic inhibition in dendrites”
- 2002 – 2007 Dept. of Neurobiology, Hebrew University, Jerusalem, Israel.
 M.Sc., Supervisor: Prof. Idan Segev.
 Master Thesis: “Spike timing dependent plasticity in dendrites”
- 1999 – 1999 Dept. of Genetics, Hebrew University, Jerusalem, Israel.
 Undergraduate project. Supervised by: Prof. Joseph Hirschberg.
 Subject: Scanning DNA libraries (Half time for ~two semesters).
- 1998 – 2002 Hebrew University, Jerusalem, Israel
 B.Sc., Biology.
- 1998 – 1998 ORT Hermelin College, Netanya, Israel
 Programmer certification.

KEY PUBLICATIONS

Gidon A, Segev I. *Principles governing the operation of synaptic inhibition in dendrites*. (2012) **Neuron**. 75(2): 330–341

Previewed by: Rieubland S, Roth A, Häusser M. *Dendritic Ventriloquism: Inhibitory Synapses Throw Their Voices* (2012) **Neuron**. 75(2):190-193

PUBLICATIONS – journal articles

Bar Ilan L, **Gidon A**, Segev I. *The Role of Dendritic Inhibition in Shaping the Plasticity of Excitatory Synapses* (2012). **Front. Neural Circuits**.

Bar Ilan L, **Gidon A**, Segev I. *Dendritic inhibition controlling excitatory synaptic plasticity*. (2011) **J Neurophysiol**. 105:989-998.

Gidon A, Segev I. *Spike-timing-dependent synaptic plasticity and synaptic democracy in dendrites*. (2009) **J Neurophysiol**. 101(6):3226-34.

Druckmann S, Banitt Y, **Gidon A**, Schürmann F, Markram H, Segev I. *A novel multiple objective optimization framework for constraining conductance-based neuron models by experimental data*. (2007) **Front Neurosci**. 1(1):7-18.

WORKSHOPS

Principles governing the operation of synaptic inhibition in dendrites (2011). invited presentation at **Dendrite function and wiring: experiments and theory** CNS*2011 workshop, Stockholm.

PUBLICATIONS – book chapters

Druckmann S, **Gidon A**, Segev I. *Computational Neuroscience – Capturing the Essence*. In: **Neurosciences** (Giovanni Galizia and Pierre-Marie Lledo., eds.). Springer. *In press*

PUBLICATIONS – conference proceedings

Gidon A, Segev I. *A Unifying Model of the Neocortical Column 12: Coverage and functional impact of synaptic inhibition in cortical dendrites*. Program No. 268.12. **Neuroscience 2012 Abstr.**. New Orleans, Louisiana: Society for Neuroscience, (2012) online.

Gidon A, Segev I. *Inhibitory coverage of dendritic excitation*. Twentieth Annual Computational Neuroscience Meeting: CNS*2011 Stockholm, Sweden. 23-28 July 2011. (2011) **BMC Neuroscience Abstr**, 12(Suppl 1):P291

Gidon A, Segev I. *Design principles for inhibition in dendrite*. The Israel Society for Neuroscience 19th Annual Meeting Eilat, Dec. 12 - 14, 2010. (2010) **ISFN Abstr**. Journal of Molecular Neuroscience.

Gidon A, Hill SL, Schuermann F, Markram H, Segev I. *Shaping the response of layer 5 cortical Pyramids by Martinotti inhibition – an experimentally based modeling study*. (2008) **FENS Abstr**. 4:154.28

Gidon A, London M, Segev I. *Stochastic synaptic transmission is advantageous for learning complex temporal firing patterns in neurons*. Abstracts of the 16th Annual Meeting of the Israel Society for Neuroscience. (2007) **ISFN Abstr**. Neural Plasticity

Markram H, Druckmann S, **Gidon A**, Hay E, King JG, Ramaswamy S, Ranjan R, Riachi I, Sfyarakis K, Schuermann F, Hill SL. *Calibrating and validating the biological accuracy of a model neocortical column: from ion channels to network dynamics*. (2008) **FENS Abstr**. 4:154.33

Hill SL, Ranjan R, Ramaswamy S, Druckman S, **Gidon A**, Bao J, Riachi I, Schürmann F, Henry Markram. The Blue Brain Project: calibrating the neocortical column. Sixteenth Annual Computational Neuroscience Meeting: CNS*2007 Toronto, Canada. 7–12 July 2007. (2007) **BMC Neuroscience Abstr.** 8(Suppl 2):P110

Markram H, **Gidon A**, Jan A, Mattson BJ, Schuermann F, Abou Jaoudé G, Silberberg G, Anwar H, Segev I, Riachi I, Frye J, King JG, Martinez K, Sfyakis K, Toledo-Rodriguez M, Hines M, Goodman P, Ueno Y and Wang Y. The blue column – the reconstructed template neocortical column. (2006) **FENS Abstr.** 3:A037.10

Schuermann F, **Gidon A**, Jan A, Abou Jaoudé G, Anwar H, Segev I, Riachi I, Frye J, King JG, Sfyakis K, Hines M, Giugliano M, Goodman P, Ranjan R, Lasserre S, Druckmann S, Hussain T, Banitt Y, Shah SY, Markram H. *The blue brain project – a challenge for computer science.* (2006) **FENS Abstr.** 3:A037.11

Druckmann S, **Gidon A**, Banitt Y, Ranjan R, Toledo-Rodriguez M, Schuermann F, Markram H, Segev I. *Conductance-based models capturing the firing repertoire of inhibitory interneurons in the neocortex.* (2006) **FENS Abstr.** 3:A037.20

Gidon A, Segev I. *Conducting STDP in dendrites. Abstracts of the 13th Annual Meeting of Israel Society for Neuroscience.* (2005) **ISFN Abstr.** Neural Plasticity 12: 1 – 68

SCIENTIFIC EXHIBITIONS

Gidon A, Segev I. *The “dancing neuron”.* (2006) NeuroArt, CosmoCaixa Science Museum, Barcelona.

AWARDS

- 2012** The Alexander Silberman Institute of Life Sciences Selected Monthly ARTicle (SMART) Prize.
- 2012** ICNC/ELSC Amit memorial award in computational neuroscience for outstanding achievements as research students.
- 2012** Minerva postdoctoral fellowship.
- 2012** Edmond and Lily Safra Center for Brain Sciences (ELSC) Fellowship for a postdoctoral internship position.
- 2012** EMBO Long-Term Fellowship.