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Research

- 2017 – present Associate Professor, Max F. Perutz Laboratories, Medical University of Vienna
- 2012 – 2017 Junior Group Leader, Max F. Perutz Laboratories, Medical University of Vienna
- 2005 – 2011 Postdoctoral Fellow, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK/NIH)
Advisor: Dr. James H. Hurley
- 2001 – 2005 PhD student, MRC Laboratory of Molecular Biology (LMB), Cambridge, U.K.
Advisor: Dr. Jan Löwe
- 2000 Internship, R&D Genetics, AstraZeneca, U.K.

Education

- 2001 – 2005 PhD, University of Cambridge. Advisor: Jan Löwe, Structural Studies Division
- 1998 – 2001 BSc (Hons) Biochemistry with Medical Biochemistry, University of Bristol, U.K.
(First Class Honours)

Funding

- 2017 – 2020 Austrian Research Fund (FWF) Project (P 30584)
'Structure, Function, and Regulation of Protein Kinase D.'
- 2017 – 2020 Austrian Research Fund (FWF) Hertha Firnberg Postdoctoral Fellowship to Dr. Linda Trübstein (T 915).
- 2017 – 2020 Austrian Research Fund (FWF) Doctoral Program "Signaling Mechanisms in Cellular Homeostasis".
- 2015 – 2018 Austrian Research Fund (FWF) Project (P 28135)
'Lipid-activated kinases in cell shape and motility.'
- 2017 – 2017 University of Vienna Thesis Completion Fellowship to I. Lučić.

2015 – 2017 Boehringer Ingelheim Fonds (BIF) PhD Fellowship to D. Elsner.
2014 – 2016 Austrian Academy of Sciences DOC PhD Fellowship to F. von Raussendorf.

Honours and Awards

2016 F1000Prime Faculty Member: Cell Signaling & Trafficking Structures Section
2006-2012 NIDDK Nancy Nossal Fellowship (National Institutes of Health (NIH), U.S.A.)
2006-2008 EMBO Long Term Fellowship

Invited Conference Talks

2018 FASEB conference 'Phospholipids: Dynamic Lipid Signaling in Health and Disease', Steamboat Springs, CO USA
2017 FASEB conference 'Protein Kinases and Protein Phosphorylation', Cambridge, UK
2015 FASEB conference 'Protein Kinases and Protein Phosphorylation', Itasca, IL USA

Teaching/Mentoring Experience

2012 – present Supervision of five Masters students and four PhD students.
2017 – present Biophysical Chemistry of Macromolecules
2015 – present Lecture Series: Advanced Biophysical Methods
2015 – present Lecture Series: Molecular Medicine I
2014 – present Lecture Series: Methods in Molecular Biology and Biochemistry
2013 – present Practical course: Spectroscopic Methods in Molecular Biology
2013 – present Introductory Course in Cell Signaling
2012 VBC PhD Lecture Series: 'Lipid-Activated Signal Transduction'
2010 Mentor, Summer Internship Program, NIH, U.S.A.
2003 – 2005 Undergraduate Tutor, Corpus Christi College, University of Cambridge, U.K.

Peer Review Activities

Journals Acta Cryst D; Biochemistry; Cell; Chemical Reviews; Nature Communications; Nature Structural and Molecular Biology; PLoS Biology; PNAS; Science; Science Signaling.
Grant review Agence Nationale de la Recherche (France).

Publications

Lučić, I., Rathinaswamy, M.K., Truebestein, L., Hamelin, D., Burke, J.E., **Leonard, T.A.** (2018)

Conformational sampling of membranes by Akt controls its activation and inactivation.

Proceedings of the National Academy of Sciences (pii: 201716109. doi:

10.1073/pnas.1716109115).

von Raußendorf, F., de Ruiter, A., **Leonard, T.A.** (2017) A switch in nucleotide affinity governs activation of the Src and Tec family kinases. *Scientific Reports* 7(1):17405 (doi: 10.1038/s41598-017-17703-5).

¹Ebner, M., ¹Lučić, I., ***Leonard, T.A.**, *Yudushkin, I. (2017) PI(3,4,5)P₃ restricts Akt activity to cellular membranes. *Molecular Cell* 65(3):416-431 (doi: 10.1016/j.molcel.2016.12.028).

¹Co-first authors; *Co-corresponding authors.

Truebestein, L., **Leonard, T.A.** (2016) Coiled-coils: The long and short of it. *BioEssays* 38:903-916 (doi: 10.1002/bies.201600062). Review.

Truebestein, L., Elsner, D.J., **Leonard, T.A.** (2016). Made to measure – keeping Rho kinase at a distance. *Small GTPases* 7(2):82-92 (doi: 10.1080/21541248.2016.1173770). Review.

Truebestein, L., Elsner, D.J., Fuchs, E., **Leonard, T.A.** (2015). A molecular ruler regulates cytoskeletal remodelling by the Rho kinases. *Nature Communications* 6:10029 (doi: 10.1038/10029).

F1000 Prime Recommended.



Lučić, I., Truebestein, L., **Leonard, T.A.** (2015). Novel features of DAG-activated PKC isozymes reveal a conserved 3-D architecture. *Journal of Molecular Biology* 428(1):121-41 (doi: 10.1016/j.jmb.2015.11.001).

Gutierrez-Uzquiza, A., Colon-Gonzalez, F., **Leonard, T.A.**, Canagarajah, B.J., Wang, H., Mayer, B., Hurley, J.H., Kazanietz, M.G. (2013). Coordinated activation of the Rac-GAP β2-chimaerin by an atypical proline-rich domain and diacylglycerol. *Nature Communications* 4:1849 (doi: 10.1038/ncomms2834).

Yang, H., Tong, J., **Leonard, T.A.**, Im Y.J. (2013). Structural determinants for phosphatidylinositol recognition by Sfh3 and substrate-induced dimer-monomer transition during lipid transfer cycles. *FEBS Lett.* 5;587(11):1610-6 (doi: 10.1016/j.febslet.2013.04.009).

Leonard, T.A. C2 domain proteins. *Encyclopedia of Metalloproteins.* (2013). (doi 10.1007/978-1-4614-1533-6). Book chapter.

Leonard, T.A., Hurley, J.H. (2011). Regulation of protein kinases by lipids. *Curr Opin Struct Biol* 21, 785-791. Review.

Leonard, T.A., Rozycki, B., Saidi, L.F., Hummer, G., Hurley, J.H. (2011). Crystal structure and allosteric activation of Protein Kinase C βII. *Cell* 144 (1), 55-66.

F1000 Prime Recommended.



(Comment on: Kazanietz, M.G., Lemmon, M.A. (2011). Protein Kinase C regulation: C1 meets C-

tail. *Structure* 19 (2) 144-146).

- Wu, Y., Sommers, J.A., Suhasini, A.N., **Leonard, T.A.**, Deakyne, J.S., Mazin, A.V., Shin-ya, K., Kitao, H., Brosh, R.M. (2010). Fanconi Anemia Group J Mutation Abolishes its DNA Repair Function by Uncoupling DNA Translocation from Helicase Activity or Disruption of Protein-DNA Complexes. *Blood* 116(19) 3780-91.
- Oliva M.A., Halbedel S., Freund S.M., Dutow P., **Leonard T.A.**, Veprintsev D.B., Hamoen L.W., Löwe J. (2010). Features critical for membrane binding revealed by DivIVA crystal structure. *EMBO J.* 29(12):1988-2001
- Leonard, T.A.**, Hurley, J.H. (2007). Two Kinase Family Dramas. *Cell* 129 (6), 1037-1038. Preview.
- Leonard, T.A.**, Møller-Jensen, J., Löwe, J. (2005). Towards understanding the molecular basis of bacterial DNA segregation. *Philos Trans R Soc Lond B Biol Sci.* 360 (1455), 523-35. Review.
- Leonard, T.A.**, Butler, P.J.G., Löwe, J. (2005). Bacterial chromosome segregation: Structure and DNA binding of the Soj dimer – a conserved biological switch. *EMBO J.* 24(2), 270-82.
- Leonard, T.A.**, Butler, P.J.G., Löwe, J. (2004). Structural analysis of the chromosome segregation protein Spo0J from *Thermus thermophilus*. *Molecular Microbiology* 53(2), 419-432.