

# **CURRICULUM VITAE – RAZ PALTY**

## **CONTACT INFORMATION**

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## **CURRENT POSITION**

2016                      Assistant Professor, Faculty of Medicine, Department of Biochemistry, Technion – Israel  
Institute of Technology, Haifa, Israel

## **PREVIOUS POSITIONS**

2012 – 2016            Postdoc, Department of Molecular and Cell Biology, University of California, Berkeley, USA

2010 – 2012            Postdoc, Department Biological Chemistry, Weizmann Institute of Sciences, Rehovot, Israel

## **EDUCATION**

2010 – PhD (*Summa Cum-Laude*) Ben-Gurion University, Department of Physiology, Beer-Sheva, Israel

2004 – MSc, Physiology, Ben-Gurion University, Israel

2002 – BSc, Biology, Ben-Gurion University, Israel

## **TEACHING RESPONSIBILITIES**

2005.    Lecturer, Cellular Physiology. Ben Gurion University, Department of Medical Health Sciences, Israel

2005.    Instructor, Histology. Ben Gurion University, Department of Medical Health Sciences, Israel

2003.    Instructor, Introduction to human physiology. Ben Gurion University, Department of Medical Health Sciences, Israel

## **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2016 – Current    Biophysical Society

## **HONORS, AWARDS AND FELLOWSHIPS**

- 2016 – 2018 Career Advancement Chair (Women's Division), Technion – Israel Institute of Technology
- 2013 – 2014 Postdoctoral Fellowship, American Heart Association
- 2010 – 2011 Postdoctoral Fellowship, Clore foundation
2011. Weizmann Department of Biological Chemistry Annual Retreat Prize.
2005. Ben Gurion University- Faculty of Health Sciences, Dean Award for excellence in PhD studies.
2004. The Israel Academy of Sciences and Humanities – ‘Adams’ Pre-Doctoral Fellowship.
2004. Kreitman Foundation Pre-Doctoral Fellowship.
2004. Ben-Gurion University – Rector’s Award for excellence in M.Sc. studies.
2004. Zinc Signals Conference, Aarhus, Denmark. Young Scientist Award.
2004. Israeli Academic Association Award for excellence in M.Sc. studies.

## **LIST OF PUBLICATIONS**

1. Palty R, Fu Z, Isacoff EY. “Sequential steps of CRAC channel activation” *Cell Reports* 19 (9), 1929-1939. 2017
2. Palty R, Isacoff EY. “Cooperative STIM1 binding to the N’ and C’ termini of Orai1 gates and modulates CRAC channels.” *JBC* 291(1):334-41. 2016
3. Palty R, Stanley C, Isacoff EY. “Critical role for Orai1 C-terminal and TM4 in gating of CRAC channels.” *Cell Research* 25 (8):963-80. 2015
4. Palty R, Shoshan-Barmatz V. “Mitochondrial Na<sup>+</sup>/Ca<sup>2+</sup> exchange assays.” *Cold Spring Harbor Protocols* 2014(2):202-6. 2014
5. Ben-Hail D, Palty R, Shoshan-Barmatz V. “Measurement of mitochondrial Ca<sup>2+</sup> transport as mediated by VDAC1, by the Na<sup>+</sup>/Ca<sup>2+</sup> exchanger and by the Ca<sup>2+</sup> uniporter.” *Cold Spring Harbor Protocols* 2014(2):161-6. 2014
6. Bharill S, Fu Z, Palty R, Isacoff EY. “Stoichiometry and specific assembly of Best ion channels.” *PNAS* 111(17):6491-6. 2014
7. Palty R, Raveh A, Kaminsky I, Meller R, Reuveny E. “SARAF Inactivates the Store Operated Calcium Entry Machinery to Prevent Excess Calcium Refilling.” *Cell* 149(2):425-38. 2012

\*Research Highlight: Stop refilling  $\text{Ca}^{2+}$  stores. *Nat Rev Mol Cell Biol*.

8. Palty R, Sekler I. "The mitochondrial  $\text{Na}^{+}/\text{Ca}^{2+}$  exchanger." *Cell Calcium*. 52(1):9-15. 2012
9. Palty R, Hershfinkel M, Sekler I. "Molecular identity and functional properties of the mitochondrial  $\text{Na}^{+}/\text{Ca}^{2+}$  exchanger." *JBC*. 287(38):31650-7. 2012
10. Palty R, Silverman WF, Hershfinkel M, Caporale T, Sensi SL, Parnis J, Nolte C, Fishman D, Shoshan-Barmatz V, Herrmann S, Khananshvil D, Sekler I. "NCLX is an essential component of mitochondrial  $\text{Na}^{+}/\text{Ca}^{2+}$  exchange." *PNAS* 107(1):436-41. 2010
11. Palty R, Hershfinkel M, Yagev O, Saar D, Barkalifa R, Khananshvil D, Peretz A, Grossman Y and I Sekler. "Single alpha-domain constructs of the  $\text{Na}^{+}/\text{Ca}^{2+}$  exchanger, NCLX, oligomerize to form a functional exchanger." *Biochemistry* 45:11856-66, 2006.
12. Palty R, Ohana E, Hershfinkel M, Volokita M, Elgazar V, BaharirO, Silverman WF, Argaman M and I. Sekler. "Lithium-calcium exchange is mediated by a distinct potassium-independent sodium-calcium exchanger." *JBC* 279:25234-40, 2004
13. Ohana E, Segal D, Palty R, Ton-That D, Moran A, Sensi SL, Weiss JH, Hershfinkel M and I Sekler. "A sodium zinc exchange mechanism is mediating extrusion of zinc in mammalian cells." *JBC* 279:4278-84, 2004.

### **PROVISIONAL PATENT**

Ion Exchangers And Methods Of Use Thereof. Sekler, I., Hershfinkel, M., Yagil, Y., and Palty, R. (2011) WO2011048589A3

### **INVITED TALKS**

2004. Single alpha-domain constructs of the  $\text{Na}^{+}/\text{Ca}^{2+}$  exchanger, NCLX, oligomerize to form a functional exchanger. Zlotowski Center for Neuroscience Annual Meeting, Mizpe-Rammon, Israel.
2007. Sodium dependent  $\text{Ca}^{2+}$  or  $\text{Zn}^{2+}$  transport is mediated by Single a-domain constructs of the  $\text{Na}^{+}/\text{Ca}^{2+}$  exchanger, NCLX. Zinc Signals, Abbazia di MonteOliveto Maggiore, Italy.
2012. SARAF, A Novel Regulator of Store Operated Calcium Entry. Biophysical Society Annual Meeting, San Diego, USA
2015. Critical Role for Orail C-Terminal and TM4 in Gating of CRAC Channels. Gordon Research Conference - Organellar Channels & Transporters. Bentley University, Waltham, MA USA
2016. Closing CRACs: Regulation of Intracellular Calcium Signals Around Organelles. Department of Biological Regulation, Weizmann Institute of Science, Rehovot, Israel