

CURRICULUM VITAE

Arie-Lev Gruzman

Born: October, 3, 1970, Gorky (Nizhniy Novgorod), former USSR

Education:

1985 - 1988: First Gorky nurse college (*Summa cum Laude*)

1988 - 1991: Medical school, Pediatric faculty, Gorky Academy for Medicine (study was not finished due to repatriation to Israel)

1993 - 1995: B.Sc., Chemistry, Bar-Ilan University, Ramat-Gan, Israel

1997 - 2003: Ph.D., Medicinal Chemistry and Pharmacology, School of Pharmacy, Faculty of Medicine, Hebrew University of Jerusalem, Israel Thesis title (*Summa cum Laude*): "Synthesis and study of mechanism of action of novel anti-hyperglycemic compounds for treatment of type 2 diabetes." Supervisors: Prof. Shlomo Sasson and Prof. Jehoshua Katzehdler.

2004 - 2007: Post-Doctoral Research Fellow, Biochemistry, Department of Physiology, Medical School, University of California, San Francisco and Research Institute of Pacific Medical Center at San Francisco, U.S.A. Supervisor: Prof. Vishvanath Lingappa

Positions

2007-2009: Head of the project (Development of new antidiabetic drug), Yissum Technology transfer company of Hebrew University of Jerusalem, Jerusalem.

2009 - 2016: Senior Lecturer, Department of Chemistry, Bar-Ilan University, Ramat-Gan, Israel.

2016-present: Associate Professor, Department of Chemistry, Bar-Ilan University, Ramat-Gan, Israel.

Awards and fellowships

2016. "Outstanding Lecturer". Bar-Ilan University, Ramat-Gan, Israel.

2013. Fellowship for participation in "ALS Drug Discovery" workshop organized by American ALS association, Washington, DC, USA.

2007. Study fellowship, EURO Science Multidisciplinary Program: Prevention and early diagnosis of metabolic syndrome, Summer school for identification of proteins and post-translation modifications by mass spectrometry, de Duve Institute, Brussels, Belgium.

2007. "Faculty of 1000 Biology Award" for paper: "Common molecular signature in SOD1 for both Sporadic and Familial Amyotrophic Lateral Sclerosis. Proc Natl Acad Sci U S A, 2007, 104, 12524-12529 This paper has been selected for "Faculty of 1000 Biology" (<http://www.f1000biology.com>) "Faculty of 1000 Biology" is an award-winning online service that highlights and evaluates the most 1000 interesting papers in a year (Papers are highlighted on the basis of their scientific merit rather than the journal in which they appear) published in the biological sciences, based on the recommendations of over 2000 of the world's top researchers.

2005. The Best Presentation Award. Prostate Cancer Retreat, UCSF Comprehensive Cancer Centre. San Francisco, USA.

2004. Distinguish PhD dissertation, Faculty of Medicine, The Hebrew University of Jerusalem. Jerusalem, Israel.

2003. The Kaye Award for applied scientific projects. The Industrial Union of Great Britain and The Hebrew University of Jerusalem.

2002. Award for Excellent Tutor. Faculty of Medicine, Hebrew University of Jerusalem. Jerusalem, Israel.

2002. Bern-Schlender Research Award. The Diabetes Research Centre of The Hebrew University of Jerusalem, Jerusalem, Israel.

2001. Award for excellence in study achievements. School of Pharmacy, Faculty of Medicine, Hebrew University of Jerusalem, Jerusalem, Israel.

1999. Ianuka Award for excellent research, School of Pharmacy, Faculty of Medicine, Hebrew University of Jerusalem, Jerusalem, Israel.

1999. Second Award for excellent research in field of diabetes. The Diabetic Research Centre of The Hebrew University of Jerusalem, Jerusalem, Israel.

1993. Exodus award for outstanding new repatriant students. Bar-Ilan University, Ramat-Gan, Israel.

Supervised students: awards and fellowships

1. Pinchas Zer Aviv, The Best Poster Award, 9th Congress of Israel Association of Medicinal Chemistry, Rehovot, Israel, **2011**.
2. Tamar Getter, "Lev Zion four years PhD fellowship for students from peripheries", **2013-2016**.
3. Shirin Kahremany, "Wolf Prize for outstanding PhD students", **2014**.
4. Sagiv Waintraub, The Best Poster Award in 6th National Student Congress of Organic Chemistry, **2014**.
5. Lena Trifonov, "Schechter Prize" for outstanding master degree students, **2015**.
6. Anna Munder, "D-cure travel grant", for participation (oral presentation) in the 23rd Annual Meeting of Italian Society of Medicinal Chemistry, Solerno, Italy, September, **2015**.
7. Efrat Shtriker, Best Poster Award. "Development of artificial islets", Bio-Organic Retreat of the Chemistry Department, Bar-Ilan University, Acco, January, **2016**.
8. Efrat Shtriker, "Schechter Prize" for outstanding master degree students, **2016**.
9. Ilana Babaev, "TEVA analytical chemistry fellowship" for outstanding ungraduated students, **2016**.
10. Salome Azulay-Ginzburg, "Best poster award", 2nd retreat of Department of Chemistry (bioorganic division), Mitzpe-Ramon, Israel, May, **2017**.
11. Ilana Babaev. "Best Poster Award", 14th Annual Meeting of the Medicinal Chemistry Section of the Israel Chemical Society (MCS-ICS), Rehovot, Israel, June, **2017**.
12. Laura Levy, "Schechter Prize" for outstanding master degree students, **2018**.
13. Eliav Blum, "Moris Banin Prize" for outstanding PhD students, **2018**.
14. Salome Azulay-Ginzburg, NAAMAT, Edelson Foundation prize for outstanding women researchers in field of chemistry and pharmacology. **2018**.
15. Salome Azulay-Ginzburg, Navon fellowship for PhD students, Israel Ministry of Science, Technology and Space. **2018**.
16. Eliav Blum. The best flash talk presentation. Fighting retinal degenerative diseases with RPE65-inhibitors. 16th Annual Meeting of The Medicinal Chemistry Section of the Israel Chemical Society (MCS-ICS). June, **2019**, Rehovot, Israel.
17. Lena Trifonov, Royall Society of Chemistry, UK. Travel fellowship to VI International Caparica Conference on Analytical Proteomics, Lisbon, Portugal, **2019**.
18. Shirin Kahremany, Postdoctorate fellowship to work in peripheral Israel areas. Israel Ministry of Science, Technology and Space. **2019**.
19. Lena Trifonov, Israel Young Medicinal Chemist Award. **2020**.

Personal research grants

1. European Foundation of Study of Diabetes (EFSD) and D-Cure Young Investigator Awards for Collaborative Diabetes Research between Israel and Europe, **2010-2012** "Rational design, synthesis and mechanism of action of novel antidiabetic ethoxybenzo-thiazol derivatives". (\$80.000).
2. DIAB. LTD (France), **2012-2013** "Rational design, synthesis and mechanism of action of novel ethoxythibenzoyl based antidiabetic compounds". (\$500.000), with Prof. S. Sasson and Prof. E. Cherasi both from HUJ.
3. Bar-Ilan University Vice President for Research internal grant, **2012**, (\$2.000)
4. Israel Ministry of Trade, Labor and Industry (MOTLI), KAMIN program, **2012-2015**, "Novel synthetic chemical chaperones as a basis for Amyotrophic Lateral Sclerosis treatment". (\$516.000), with Prof. Daniel Offen, TAU.
5. Galaxy LTD, (Israel/Panama), **2012**, "Development of novel fluorination methods for peptide labeling". (\$10.000).
6. D-cure Young Investigation award of Israel Association of Diabetes, "Development of beta cells protecting drugs". **2013**, (\$20.000)
7. Bar Ilan University-Rabin Medical Center, **2014**, "Development of new compounds for treatment of Multiple System Atrophy using nasal olfactory stem cells culture". (\$20.000), with Prof. Daniel Offen, TAU.
8. ISF. **2014-2018** "Nanotechnology-based development of novel anti-diabetic treatment". (\$282.000) with Prof. Jean-Paul Lellouche (BIU).
9. NOFAR, Israel Ministry of Trade, Labor and Industry (MOTLI). **2014-2015**, "Development of novel reagents for generating islets β -cells and enhancing their function based on a clustered nanoformulation of neuroligin-2 mimetics." (\$136.000)
10. Bar-Ilan University Vice President for Research internal grant, **2015**, (\$13.000)
11. Israel ministry of Trade, Labor and Industry (MOTLI), KAMIN program, **2015-2016**. "Development of novel TLR 4 inhibitors as potential cardioprotective therapeutic agents". (\$347.000), with Prof. Edith Hochhauser (Belinson Hospital, TAU).
12. Israel Ministry of Science and Technology (MOST), Scientific and Technological Cooperation between Italy and Israel. **2016-2018**. ALS research. "Development of anti-ALS drugs", with Prof. Gianluca Cestra, (IBPM, Consiglio Nazionale delle Ricerche and University of Rome La Sapienza, Rome, Italy). (\$100.000 for two years, for Israeli PI).
13. Israel Scientific Foundation (ISF) grant for the organization of the international workshop "From insulin mimetics until the artificial pancreas- comprehensive approaches in antidiabetic therapy", with Prof. Jean-Paul Lelloushe (BIU). **2017-2018**. (\$18.000).
14. Bar-Ilan Rector grant for interdisciplinary research between Bar-Ilan researchers. "Computer-based design and development of novel beta cells pioneering treatment of both types of diabetes." **2017-2018**. (\$12.000) with Prof. Jean-Paul Lelloushe, Prof. Hanoch Senderowitz, Prof. Haim Cohen and Dr. Ron Piran.
15. German-Israeli Foundation (GIF), "Understanding of the proteostasis as a basis for novel ALS treatment", **2017-2021** (200.000 Euro) with Prof. Dr. Simon Ebbinghaus Institute of Physical and Theoretical Chemistry, Department of Life Sciences, Technical University Carolo Wilhelmina at Brunswick, Braunschweig, Germany.

16. NOFAR, Israel Ministry of Trade, Labor and Industry (MOTLI). **2018-2019**. A novel phenylchromane derivative increases the rate of glucose uptake in skeletal muscles and augments insulin secretion from pancreatic beta-cells. (\$185.000) with Prof. Shlomo Sasson, Hebrew University of Jerusalem. Israel.
17. Israel Ministry of Science and Technology (MOST), Scientific and Technological Cooperation between Vietnam and Israel. **2021-2023**. Inhibiting the copper efflux system in Gram negative microbes by peptidomimetics as a novel approach for developing antibiotics. (\$180.000 for Israeli PI), with Dr. Nguyen Tri Nhan, the Faculty of Biology and Biotechnology, University of Science, Vietnam National University in Ho Chi Minh City, Vietnam.
18. "Hava Zingboim, LTD" cooperative supported research in antiinflammatory effect of natural compounds. **2021**, (\$6.000).
19. "Dr. Klein, LTD" cooperative supported research in antiaging agents. **2022**, (\$45.000).
20. National Institute for Nanotechnology. Development of cognitive enhancers, **2022**, (\$12.000).

Co-investor research grants

1. ISF. **2010-2014**, "Catecholamine dependent ventricular tachycardia -novel therapies" (\$64.000) with Dr. Michael Arad, (Sheba Hospital).
2. ISF. **2010-2014**, Rational design, synthesis and mechanism of action of novel antidiabetic 1,3-dithiane derivatives. (\$36.000) with Prof. Shlomo Sasson, (HUJ).
3. Israel Ministry of Trade and Industry (MOTLI), KAMIN program, **2011-2013**, "Development of memory enhancement pill" (\$20.000) with Prof. Y. Rosenblum (Haifa University).
4. American Association for Juvenile Diabetes Research Foundation. **2014**, "Preparation of NL-2 based beta-cells enhancers for diabetes treatment" (\$10.000) with Prof. Steven Chessler, (UCI, USA)
5. BSF. **2014-2016**, "Development of novel drugs against cystic fibrosis" (\$20.000) with Prof. Hanoch Senderowitz (Bar Ilan University).
6. NIH grant. **2016**. Synthesis of chiral β -aminoalcohols as a retinal mimetics (\$37.000) With Prof. Krzysztof Palczewski, School of Medicine, Case Western Reserve University, Cleveland, Ohio, USA.
7. Israel Ministry of Industry. **2017-2018**. "KAMIN program". "SAM9 as a molecular target for the development of the drug candidates for treatment of skin inflammatory diseases". Sub-contractor (\$20.000), with Dr. Sarig, Department of Dermatology, Tel Aviv Sourasky Medical Center.
8. Israel Ministry of Industry. **2019-2021**. "KAMIN program". Novel GSK3 inhibitors for treating neurodegenerative disorders. Sub-contractor (\$20.000), with Prof. Senderowitz (BIU) and Prof. Hagit Eldar (TAU).

Scientific administrative activity

1. Head of organization committee of 9th congress of Israel Association of Medicinal Chemistry, **2011**, Israel

2. Elected as a Vice-President of Israel Association of Medicinal Chemistry **(2011-2015)**
3. Member of the “Organic, Bioorganic and Medicinal Chemistry panel” in BSF **(2013)**.
4. Reviewer of BSF, Ministry of Technology and Science, The National Institute for Biotechnology in the Negev and ISF grants from **2015**.
5. Member of the evaluation board of UK Diabetic Association annual grants. **(2014-current)**
6. Member of the evaluation board of Italian Ministry of Health annual grants (Diabetes). **(2015-current)**.
7. Member of the organizing committee of the ASMC'15 (6th International Symposium on Advances in Synthetic and Medicinal Chemistry), Tel-Aviv, Israel, November, **(2015)**.
8. Member of the International board of experts of Polish Academy of Science grants (panel of diabetes research) **(2014-current)**.
9. Head of the organizing committee of 6th National Student Symposium in Organic Chemistry, Bar-Ilan University, **(2014)**.
10. Member of the evaluation board of Czech Republic Health Research Council, annual grants (Diabetes), **(2015-2016)** and **(2021-2021)**.
11. Israel representative member in European Federation of Medicinal Chemistry (EFMC) EC & Council Meeting, Manchester, UK. 26-29/8/**2016**.
12. Member of an organization committee of 82nd Annual Congress of Israel Chemical Society, **2017**.
13. Head of the organizing committee of international congress “From insulin mimetics until the artificial pancreas- comprehensive approaches in antidiabetic therapy”. Ramat-Gan, Israel, **2018**.
14. Member of the evaluation board of Biotechnology and Biological Sciences Research Council, UK, **(2018-2019)**.
15. Member of the scientific board of International Centre of Translational Eye Research, Warsaw, Poland, **2019-current**.
16. Member of the expert panel “Medicinal chemistry” of Polish Academy of Science, Krakow, Poland, **2019-current**.
17. The Field Editor (Medicinal Chemistry) of “Pharmacological Reports”, **2020-current**.
18. National Representative of the Chemistry and Human Health Division of World Chemical Organization (IUPAC) for the term **2022-2023**.
19. Member of the COST Action CA20121 “NRF-2 functions and related applications”. **2021-2025**.
20. Reviewer in MND (motor neurons diseases) Association, **2022**.

Reviewer for journals:

“Journal of Medicinal Chemistry Letters”, “The Journal of Pharmacology and Pharmacy”, “Royal Pharmaceutical Society of UK”, “Medicinal Chemistry”, “Molecules”, “Future Medicinal Chemistry”, “Medicinal Chemistry Communications”

"Journal of Basic and Clinical Physiology and Pharmacology", "European Journal of Medicinal Chemistry", "Bioorganic and Medicinal Chemistry Letters", "Archives of Physiology and Biochemistry", "International Journal of Molecular Sciences", "Combinatorial Chemistry & High Throughput Screening", "Mini-reviews in Medicinal Chemistry", "Current Diabetes Review", "Molecular Biosystems", "Journal of Medicinal Chemistry", "Food and Function", "ChemMedChem", "Engineering", Biochemical. Pharmacology", "Helvetica Chimica Acta", "Zeitschrift für anorganische und allgemeine Chemie", "Journal of Biomedical Optics", "Current Organic Chemistry", "Journal of Inorganic Biological Chemistry", "Chemistry Select", "Advances in Medical Sciences", "Current Bioactive Compounds", "ACS Chemical Neuroscience", "Bioorganic and Medicinal Chemistry", "Letters of Drug Design and Development", "ACS Applied Materials and Interfaces", "PLOS1", "Current Medicinal Chemistry", "Inorganic chemistry", "Biomedical and Environmental Sciences", "Mendeleev Communications", "Antioxidants", "Journal of Cancer Therapy", "Polycyclic Aromatic Compounds", "Journal of Photochemistry & Photobiology, B: Biology", "Science Translational Medicine", "Clinical Translational Medicine", "Molecular Genetic and Metabolism". "Bioconjugate Chemistry", "Materials", "Molecular Biology Reports", "Frontiers in Neuroscience", "Diabetes", "Cell Communication and Signaling", "Experimental Lung Research", "Medicinal Research Reviews".

Bar-Ilan University Administrative activity

1. **2017.** Member of the committee for the "outstanding lecturer award"
2. **2020-2022.** Member of the committee for the "outstanding lecturer award"

Department of Chemistry Administrative activity

3. **2011-2013.** Member of the "culture events" committee of the department.
4. **2013.** Member of the department committee for organization the chemistry study for ultraorthodox Jewish community.
5. **2016.** Bio-Organic Retreat of the Chemistry Department, Bar-Ilan University, Akko. Member of organizing committee.
6. **2016.** Member of the department committee for establishing a mechanism of rotation in master degree studies.
7. **2017.** Head of the committee for the establishing of the National Medicinal Chemistry Teaching Laboratory for high school students (biotechnology) on the budget of the Ministry of Education.
8. **2019.** Head of the committee for the establishing a combine degree in chemistry/pharmacy between Bar-Ilan University and Hebrew University of Jerusalem.
9. **2021.** Academic adviser for the second degree students (the pathway without the thesis)

Industry activity

1. 2005-2007. Development of inhibitors of the virus capsid assembly. Prosetta corporation, San Francisco, USA.
2. 2010-2011. Development of new synthetic route for sialic acid derivatives. VacciGuard LTD, Nes-Ziona, Israel.
3. 2013-2015. Development anticancer drugs, Promining therapeutics LTD, Nes-Ziona, Israel.

4. 2014-2015. Development of “mutations stopper”. NOVITERO LTD, Petach-Tikva, Israel.
5. 2014-2018. All related to medicinal chemistry projects. The National Institute for Biotechnology in the Negev Ltd., Beer-Sheva, Israel.
6. 2015-2016. Drug development projects in Sourasky Medical Center, Tel-Aviv.
7. 2015-2018. Development non-toxic for humans pesticides. Evogene LTD, Rehovot, Israel.
8. 2019-2022. Co-founder of “AltA-ZuZ” drug development company that was sold to Maruho, Tokio, Japan.
9. 2019. Drug development projects in RAMBAM MedTech Ltd., Technology Transfer company.
10. 2022. Member of the scientific board of “CureDiab”, Dusseldorf, Germany.

Teaching duty

1. “Spectroscopy and structural determination” for 2nd year B.Sc. students (84-237), **2010-2017**.
2. “Pharmacology and metabolism of drugs” for 3rd year B.Sc. students (84-366), **2010-2017**.
3. “Advanced organic chemistry laboratory practice” for 3rd year B.Sc. students (84-305), **2010-current**.
4. “Kashrut and chemistry”, Department for study of science, halacha and education (77-992-21), **2015-current**.
5. “Medicinal chemistry” 3rd year B.Sc. (84-361), **2018-current**.
6. “Molecular pharmacology as a basis for drug development” (84-845-01) for M.Sc. and PhD students. **2015-current**.
7. “Biochemistry” 3rd year B.Sc. (84-319), **2020-current**.
8. “Advanced organic chemistry” for M.Sc. and PhD students. (84-311), **2019-current**.
9. “Organic chemistry”, 2nd year B.Sc. (84-206), **2022-current**.
10. “General chemistry”, Civil Engineering, Ariel University, (2-4410610), **2022-current**.

Dozens of lectures were given on volunteering basis for “GIL ZAHAV” education program, upgrading qualification studies for biology and chemistry teachers, students of high schools, students from peripheral area of Israel, “Science in the Bar”. The average mark (according to survey) for 5 years of teaching of two frontal courses is **4.75**.

*The maximal mark was **4.97** (out of maximal 5.0) for teaching the course number 84-237 in 2014.

Graduated students under my supervision (M.Sc.)

1. Omer Green, 2012
2. Naomi Rosentul, 2012
3. Bareket Daniel, 2013
4. Tamar Getter, 2013 (with Prof. Hanoch Senderowitz)
5. Shirin Kahremani, 2013 (with Prof. Hanoch Senderowitz)
6. Anna Munder, 2013

7. Ilana Zaks, 2014
8. Lena Trifonov, 2015
9. Efrat Shtriker, 2016
10. Ilana Babaev, 2018
11. Laura Levy, 2018
12. Nimrod Yosef Keshet-Levy, 2020
13. Ayelet Rothstein, 2020

Graduated students under my supervision (Ph.D)

1. Ella Meltzer-Matz, 2015
2. Pinchas Zer Aviv (with Prof. Michael Shokhen), 2016
3. Sagiv Weintraub, 2017
4. Shirin Kahremany, 2017, (with Prof. Hanoch Senderowitz)
5. Tamar Getter, 2017, (with Prof. Hanoch Senderowitz)
6. Moran Shubely, 2018
7. Anna Munder , 2018
8. Naomi Rosentul, 2018
9. Lena Trifonov, 2019
10. Efrat Shtriker, 2020
11. Salome Azulay- Ginsburg, 2021
12. Eliav Blum, 2021

Former post docs

1. Dr. Ricardo-Alfredo Luna-Mora
2. Dr. Neta Uritzky
3. Dr. Miriam Naqqash

Current members of my research group.

1. Dr. Edward Korshin (KAMEA scientist)
2. Dr. Shirin Kahremany (post-doctorate fellow).
3. Veronika Lapeshkin (PhD candidate)
4. Laura Levi (PhD candidate)
5. Mikhail Tsukerman (PhD candidate) with Prof. S. Kalugin (Faculty of Chemistry and Chemical Technology, Al-Farabi Kazakh National University, Almaty, Republic of Kazakhstan)
6. Raanan Gvirtz (PhD candidate)
7. Ayelet Rothstein (PhD candidate)
8. Aviv Malka (Ms. candidate)

LIST OF PUBLICATIONS

Articles

1. Dransfeld, O.; Rakatci, I.; Sasson, S.; **Gruzman, A.**; Smidtt, M.; Haussinger, D.; Eckel, J. Eicosanoids participate in the regulation of cardiac glucose transport by contribution to a rearrangement of actin cytoskeletal elements. *Biochem. J.* **2001**, 359, 4-12.
2. **Gruzman, A.**; Alpert, E.; Totary, H.; Reich, R.; Kaiser, N.; Sasson, S. A natural protective mechanism against hyperglycemia in vascular endothelial and smooth muscle cells: Role of glucose and hydroxyeicosatetraenoic acids. *Biochem. J.* **2002**, 362, 413-422.
3. Bloch-Shilderman, E.; Abu-Raya, S.; Trembovler, V.; Boshwitz, H.; **Gruzman, A.**; Linial, M.; Lazarovici, P. Pardaxin-stimulation of Phospholipases A2 and their involvement in exocytosis in PC12 cells. *J. Pharm. Exp Ther.* **2002**, 301, 953-962.
4. Krinsky, M.; Ligumsky, M.; Aptekar, L.; Shwob, U.; Goshen, G.; **Gruzman, A.**; Sasson, S.; Yedgar, S. Amelioration of TNBS-induced colon inflammation in rats by phospholipase A2 inhibitors. *Am. J. Physiol. Gastroint. Liver Physiology* **2003**, 285, G586-592.
5. **Gruzman, A.**; Hidmy, A.; Katzhendler, J.; Haj-Ihie, A.; Sasson, S. Synthesis and characterization of new and potent α -Lipoic acid derivatives. *Bioorg. & Med. Chem.* **2004**, 12, 1183-1190.
6. Alpert, E.; Altman, H.; Totary, H.; **Gruzman, A.**; Barnea, D.; Barash, V.; Sasson, S. 4-hydroxy tempol-induced impairment of mitochondrial function and augmentation of glucose transport in vascular endothelial and smooth muscle. *Biochem. Pharmacol.* **2004**, 67, 1985-1995.
7. Ben Yakir, M.; **Gruzman, A.**; Alpert, E.; Sasson, S. Glucose transport regulators. *Current Medicinal Chemistry-Immunology, Endocrine & Metabolic Agents*, **2005**, 5, 519-527.
8. Alpert, E.; **Gruzman, A.**; Blejter, R.; Aharoni, P.; Weisinger, G.; Eckel, J.; King, L.; Kaiser, N.; Sasson, S. Delayed development of substrate regulation of glucose transport in vascular endothelial cells. *Diabetologia* **2005**, 48, 752-755.
9. Alpert, E.; **Gruzman, A.**; Lardi-Studler, B.; Cohen, G.; Reich, R.; Sasson, S. Cyclooxygenase-2 (PTGS2) inhibitors augment the rate of hexose transport in L6 myotubes in an insulin- and AMP alpha-independent manner. *Diabetologia* **2006**, 49, 562-70.
10. Alpert, E.; **Gruzman, A.**; Cohen, G.; Tennenbaum, T.; Sasson, S. Selective cyclooxygenase-2 (PTGS2) inhibitors stimulate hexose transport in L6 myotubes in a protein kinase delta dependent manner. *Biochem. Pharmacol.* **2007**, 73, 368-377.
11. **Gruzman, A.**; Wood, W.; Alpert, E.; Prasad, D.; Miller, R.; Rothstein, J.; Cleveland, D.; Bowser, R.; Hamilton, R.; Wood, T.; Lingappa, V., Liu, J. A common molecular

signature in SOD1 for both Sporadic and Familial Amyotrophic Lateral Sclerosis. *Proc Natl Acad Sci U S A* **2007**, 104, 12524-12529

12. Cohen, G.; Riahi, Y.; Alpert, E.; **Gruzman, A.**; Sasson, S. The roles of hyperglycemia and oxidative stress in the rise and collapse of natural protective mechanism against vascular endothelial cell dysfunction in diabetes. *Arch. Physiol. Biochem.* **2007**, 113, 259-67.
13. **Gruzman, A.**; Shamni, O.; Ben Yakir, M.; Sandovski, D.; Elgart, A.; Alpert, E.; Cohen, G.; Hoffman, A.; Cerasi, E.; Katzhendler, J.; Sasson, S. Novel D-xylose derivatives stimulate muscle glucose uptake by activating AMP-activated protein kinase. *J. Med. Chem.* **2008**, 51, 8096–8108.
14. **Gruzman, A.**; Babai, G.; Sasson, S. Adenosine monophosphate-activated protein kinase (AMPK) as a target for antidiabetic drugs. *The Review of Diabetic Studies* **2009**, 6, 13-36.

As a Principal Investigator at Bar-Ilan (Senior lecturer):

15. Riahi, Y.; Sin-Malia, Y.; Cohen, G.; Alpert, E.; **Gruzman, A.**; Eckel, J.; Staels, B.; Guichardant, M.; Sasson, S. 4-HDN (4-hydroxydodecadienal) induces downregulation of the glucose transport system in vascular endothelial cells under hyperglycemic conditions by activating PPAR δ . *Diabetes* **2010**, 59, 808–818.
16. Liu L., Akhavan A., Lu M., **Gruzman A.**, Lingappa V., An J. and Bowser R. Carbonic anhydrase I is recognized by an SOD1 antibody upon biotinylation of human spinal cord extracts. *International Journal of Molecular Science* **2010**, 11, 4051-62.
17. **Gruzman A.**; Elgart A.; Viskind O.; Billauer H.; Dotan S.; Cohen G.; Mishani E.; Hoffman A.; Cerasi E. and Sasson S. Antihyperglycaemic activity of 2,4:3,5-dibenzylidene-D-xylose-dithioacetal in mouse models of type 1 and type 2 diabetes. *J. Cell. Mol. Med.*, **2012**, 16(3), 594-604.
18. Klein M.; Pulidindi I.; Perkas N.; Meltzer Mats E.; **Gruzman A.**; Gedanken A. Direct Production of Glucose from Glycogen under Microwave Irradiation. *Royall Society of Chemistry Advances*, **2012**, 2, 7262-7267.
19. Braverman S.; Cherkinsky M.; Kalendar Y.; Gottlieb H., Meltzer Mats E.; **Gruzman A.**; Goldberg I. Sprecher M. One-pot three-component preparation of novel selenium-containing spiroketals. *J. Phys. Org. Chemistry*, **2013**, 26(2), 102-108.
20. Meltzer-Mats E.; Babai G.; Pasternak L.; Uritsky U.; Getter T.; Viskind O.; Eckel J.; Cerasi E.; Senderowitz H.; Sasson S.; **Gruzman A***. Synthesis and mechanism of anti-hyperglycemic activity of benzothiazole derivatives. *Journal of Medicinal Chemistry*, **2013**, 56 (13):5335–5350.
21. Daniel B.; Green O.; Viskind O.; **Gruzman A***. Riluzole increases the rate of glucose transport in L6 myotubes and NSC-34 motor neuron-like cells via AMPK pathway activation. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration*, **2013**, 14 (5-6):434–443.
22. Shapira R.; Rudnick S.; Daniel B.; Viskind O.; Aisha V.; Richman M.; Perelman A.; **Gruzman A*** and Rahimpour S. Multifunctional self-assembled cyclic D,L- α -peptide architectures stimulate non-insulin dependent glucose uptake in skeletal muscle cells and protect them against oxidative stress. *Journal of Medicinal Chemistry*, **2013**, 2;56(17):6709-18

23. Shimanovich U*.; Munder A.; Azoia N.; Cavaco-Paulo A.; **Gruzman A.***; Knowles T.; Gedanken A.* Sonochemically-induced spectral shift as a probe of green fluorescent protein release from nanocapsules. *RSC Adv.*, **2014**, 4:10303–10309.
24. Shimanovich U*.; Munder A.; Loureiro, N.; Azoia A.; Cavaco-Paulo A.; Gedanken A.; **Gruzman A.*** Gene silencing by synthesized via sonochemical method siRNA nanoparticles. *Journal of Nanomedicine & Nanotechnology*, **2014**, 5:204.
25. Zaks I.; Getter T.; **Gruzman A.*** Activators of AMPK – not just for type II diabetes. Invited review in *Future Med. Chem.*, **2014**, 6:1325-1353.
26. Pasternak L.; Meltzer-Mats E.; Babay-Shani G.; Cohen G.; Viskind O.; Eckel J.; Cerasi E.; Sasson S.* **Gruzman A.*** Benzothiazole derivatives augment glucose uptake in skeletal muscle cells and stimulate insulin secretion from pancreatic β -cells via AMPK activation *Chem. Comm*, **2014**, 50:11222-11225.
27. Kahremany S.; Livne A.; **Gruzman A.**; Senderowitz H.; Sasson S. Activation of Peroxisome Proliferator Activator Receptor- δ : from computer modelling to biological effects. *British Journal of Pharmacology*, **2015**, 172:754-770.
28. Munder A.; Moskovitz Y.; Redko B.; Levy A.; Ruthstein S.; Gellerman G.; **Gruzman A.*** Antiproliferative effects of novel aminoacridine-based compounds. *Medicinal Chemistry*, **2015**, 11:373-382.
29. Getter T.; Zaks I.; Barhum T.; Ben-Zur T.; Bösel S.; Gregoire S.; Viskind O.; Gottlieb H.; Shani T.; Green O.; Shubely M.; Senderowitz H.; Israelson A.; Kwon I.; Petri S.; Offen D.; **Gruzman A.*** A novel chemical chaperon-based drug candidate is effective in mouse model of amyotrophic lateral sclerosis (ALS). *ChemMedChem*, **2015**, 10:850 – 861.
30. Lev N.; Barhum Y.; Ben-Zur T.; Aharony I.; Trifonov L.; Regev N.; Melamed E.; **Gruzman A.**; Offen D.* DJ-1 based peptide preserves dopaminergic cells in models of Parkinson's disease. *PLoS One*, 10.1371/journal.pone.0127549, **2015**.
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49. ***Gruzman A.**, Getter T., Margalit R., Kahremany S., Lahav R., Zilber S., Bradfield P., Imhof B., Alpert E. Novel in vivo active inhibitors of leukocyte transendothelial migration. 2nd Conference “Chemistry of Bioactive Compounds, ChemBioActive”, October, **2019**, Saratov, Russia. (Plenary lecture)
50. ***Gruzman A.** Novel in vivo active inhibitors of leukocyte transendothelial migration. 1st Israel Open-Screen workshop. November, Rehovot, **2019**, Israel.
51. Getter T, Margalit R, Zilber S, Kahremany S, Hazanov N, Levy L, Blum E, Lahav R, Senderowitz H, Bradfield P, Imhof B, Alpert E and **Gruzman A.** Development of Novel Drug Candidate for Treatment of Autoimmune Diseases based on the Inhibition of Leukocyte Transendothelial Migration. The 18th Asian Chemical Congress and The 20th General Assembly of the Federation of Asian Chemical Societies, December, **2019**, Taipei, Taiwan.

52. Munder A, Shtriker E, **Gruzman A**. Mimicking Neuroligin-2 (NL-2) Function in Pancreatic β -cells by Nanocomposites as a Novel Approach for Antidiabetic Therapy. 9th International Conference on Chemical and Process Engineering (ICCPE 2020), May, 2020, Moscow, Russia. (The congress was transferred to the on-line mode due to COVID-19 pandemic).
53. ***Trifonov L.**, Korshin E., Zhenin M., Senderowitz H., Hochhauser E., **Gruzman A**. "Structurally simple, readily available peptidomimetic 1-Benzyl-5-methyl-4-(n-octylamino)pyrimidin-2(1H)-one exhibited efficient cardioprotection in a myocardial ischemia (MI) mouse model", 7th EFMC (European Federation of Medicinal Chemistry) Young Medicinal Chemist Symposium, September, 2020, Basel, Switzerland. The congress was transferred to the on-line mode due to COVID-19 pandemic).
54. Levy L, Getter T, Margalit R, Zilber S, Kahremany S, Hazanov N, Blum E, Lahav R, Senderowitz H, Bradfield P, Imhof B, Alpert E and **Gruzman A**. Development of the novel inhibitor of the leukocyte transmigration as a drug candidate for the universal treatment of auto-immune diseases. 12th Autoimmunity Congress, December, 2020, Athens, Greece. The congress was transferred to the on-line mode due to COVID-19 pandemic).
55. **Gruzman A***, Kahremany S, Cohen G. Peptidomimetics as Activators of NRF-2 COST. Zoom meeting, January, 2022. COST Action CA20121.
56. Levy-Nissim L, Kahremany S, Eretz-Kdosha N, Ogen-Stern N, Senderowitz H, Korshin E, Cohen G and **Gruzman A**. Computer-aided design and synthesis of novel Keap1-Nrf2 inhibitors. 18th Annual Meeting of the Medicinal Chemistry Section of the Israel Chemical Society (MCS-ICS). July, 2022, Rehovot, Israel.
57. **Gruzman A**. Development of the drug candidate for the treatment of auto-immune diseases. The 8th EuChemS congress, August, 2022, Lisbon, Portugal.
58. Getter T, Margalit R, Zilber S, Levy L, Kahremany S, Blum E, Lahav R, Bradfield P, Imhof B, Alpert E and **Gruzman A**. Development of the drug candidate for the treatment of auto-immune diseases. The 86th meeting of Israeli Chemical Society, September, 2022, Tel-Aviv, Israel.
59. Getter T, Margalit R, Zilber S, Levy L, Kahremany S, Blum E, Lahav R, Bradfield P, Imhof B, Alpert E and **Gruzman A**. leukocyte transmigration blocker: a novel drug candidate for the treatment of autoimmune diseases, 27th European Federation of Medicinal Chemistry, EFMC-ISMC, September, 2022, Nice, France.
60. **Gruzman A.*** Development of the drug candidate for the treatment of auto-immune diseases. Annual meeting of the Israeli Society for Physiology and Pharmacology (ISPP2022) September, 2022, Haifa, Israel.
61. Blum E, Zhang J, Korshin E, Palczewski K and **Gruzman A***. Development of chiral fluorinated alkyl derivatives of retinal analog: emixustat as drug candidates for the treatment of retinal degenerative diseases. The International Scientific-Practical conference "Georgian Scientific Pharmacy: Past and Present" dedicated to 90th anniversary of the Tbilisi State Medical University Institute of Pharmacochimistry and 135th anniversary of Academician Lovel Kutateladze (ISPC-2022). September, 2022, Tbilisi, Georgia.
62. Levy-Nissim L., Kahremany S., Cohen G., **Gruzman A.*** "NRF-2 activators in dermatology". COST Action CA20121, October, 2022, Bucharest, Romania.

Underlined the person's name who actually delivered the lecture.

**Invited lecture. Without star: the presentation was selected for a lecture from the submitted abstracts.*