Prof. Dr. Hilal Zaid

Curriculum Vitae (April 2025)

Personal Details

Name: Hilal Zaid

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Higher Education

1/2006-7/2008; **Postdoctoral fellow**, Cell Biology Programme, The Hospital for Sick Children, Toronto, ON, Canada. (Project title: Insulin-dependent Interactions of Proteins with Glucose Transporter-4)**.**

7/2005-1/2006; Postdoctoral fellow, Banting and Best Department of Medical Research, the University of Toronto, Toronto, ON, Canada (Project title: RYR1 mutations in patients with central core disease)

10/1999-6/2005; Ph.D. & M.Sc. – The Department of Life Sciences (Major: Biochemistry and Molecular Biology), Ben-Gurion University of the Negev, Beer-Sheva, Israel.

Thesis Title: Divalent Cation Binding Sites in mitochondrial porin: Characterization, Localization and Function in Mitochondrial Activities in Cell's Life and Death.

10/1995-7/1998; B.Sc. – The Department of Life Sciences (Major: Biochemistry), Ben-Gurion University of the Negev, Beer-Sheva, Israel.

Academic Employment

6/2018-present; **Full Professor**, Faculty of Medicine and Department of Biology and Biotechnology, The Arab American University, Jenin, Palestine.

1/2013-5/2018; **Associate Professor**, Department of Biology and Biotechnology, The Arab American University, Jenin, Palestine.

10/2010-12/2012; **Assistant Professor**, Department of Biology and Biotechnology, The Arab American University, Jenin, Palestine.

9/2017-8/2018, Head of Al-Qasemi Educational Research Center, Al-Qasemi Academic College, Baka, Israel.

9/2013-8/2017; **Head of the Department of Sciences Teaching**, Al-Qasemi Academic College, Baka, Israel.

3/2009-present; **Senior Scientist**, Al-Qasemi Academic College (Research center).

8/2008-2/2009; **Research Associate**, The Department of Life Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

Scholarships, Fellowships and Awards

2020	Research cluster leader in 'Structural Biology' funded by Palestinian-German Research Bridge (PGSB).
2014	Principal investigator travel fund for research collaboration, Bank of Palestine; 8000$.
2013	Excellent lecturer, Al-Qasemi Academic College, Baka, Israel.
2012	Excellent lecturer, Al-Qasemi Academic College, Baka, Israel.
2008-2010	Ministry of Absorption Fellowship for returning Israeli Scientists; 2000$ monthly for 3 years.
2006 -2008	Postdoctoral Fellowship, the Hospital for Sick Children Research Training Centre – Research training Competition (RESTERCOMP); 2500$ monthly for 2 years.
2007	Post-Doctoral INMD Travel Award, Canadian Institute of Health Research - Institute of Nutrition, Metabolism and Diabetes (CIHR-INMD); 1500$.
2005	**Excellent** Poster Presentation Award- Zolotowski Center for Neurosciences annual retreat. Mitzpe Ramon, Israel.
2002-2005	Scholarship for **Excellent Arab PhD students**. The Council for Higher Education - Planning and Budgeting Committee, Israel; 1300$ monthly for 4 years.

Research Grants:

Almaqdisi Program (French-Jerusalem joint program; Consulat Général de France à Jérusalem); Impact of biosourced molecules on slowing down of premature aging of elastic fibers induced by diabetes, 2024-2026 (23,000 €).

Almaqdisi Program (French-Jerusalem joint program; Consulat Général de France à Jérusalem); In silico predictions of natural ligands affecting the insulin signaling cascade, 2022-2023 (13,300 €).

Federal ministry of education and research, Germany; (in collaboration with the Palestinian-German Science Bridge); A research cluster in "Structural Biology", 2020-2024 (150,000 €).

German Federal Ministry of Education and Research (PALGER); Bio/Chemo-informatics and biological combined methods for detecting anti-diabetic phytochemicals candidates, 2018-2020 (40,000 €).

Almaqdisi Program (French-Jerusalem joint program; Consulat Général de France à Jérusalem) Novel anti diabetic phytochemicals: isolation, protein target and action mechanism - Ocimumbasilicum as a model, 2017-2019 (20,000 €).

Menistry of Agriculture Research Foundation, Israel; Development of Gracilaria conferta seaweed based food supplements, 2018-2020 (660,000 NIS).

D-cure (Advancing diabetes care to cure, Israel). A combined approach for isolation and identification of the bioactive anti-diabetic phytochemicals exist in Ocimumbasilicum, unravelling their mechanism of action and targeted proteins, 2018-2019 (20,000 NIS).

The Arab American University Research Fund, Palestine, Characterization of bioactive phytochemical compounds from Mediterranean medicinal plants as an approach to develop natural-based drug leads, 2019 (10,000 $)..

The Arab American University Research Fund, Palestine, Detecting novel phytochemicals inhibitors for alpha-glucosidase, pancreatic lipase and alpha-amylase by biochemical and bioinformatics tools, 2018 (10,000 $).

The Arab American University Research Fund (The best research group fund). Palestinian Anti-Diabetic Herbs*: in vitro, in vivo,* and *in silico* drug discovery and protein target identification, 2017 (35,000 $).

The Arab American University Research Fund, Palestine, Novel anti diabetic phytochemicals: isolation, protein target and action mechanism 2016 (10,000 $).

The Arab American University Research Fund, Palestine, Novel anti-diabetic medicinal plants extracts: active compounds detection and action mechanism in treating insulin resistance *in vivo* 2015, (10,000$).

Ministry of National Infrastructure, Israel, Combination of Arab traditional medicinal plants and Dead-Sea climatographic therapies for the treatment of psoriasis, 2012 -2015 (55,000 $).

The Arab American University Research Fund, Palestine, The action mechanism of five local medicinal plants in treating insulin resistance: advanced *in vitro* study, 2014- 2015 (7,000 $).

The Association of Arab Universities Research Fund, In vitro evaluation of anti-apoptotic effects of medicinal plants as a promising strategy in cancer therapy, 2014-2015 (6,000 $).

The Arab American University Research Fund, Palestine, In vitro evaluation of anti-apoptotic effects of medicinal plants as a promising strategy in cancer therapy, 2012- 2013 (7,000 $).

MOFET Research Fund, Israel, Traditional antidiabetic treatments- from herbs to molecular mechanisms, 2011-2012 (6,000 $).

Ministry of Absorption, Israel, Medicinal plants sensitize cancer chemotherapy, 2008-2010 (72,000 $).

Patents

1. VDAC1 compositions and methods of use thereof for regulating apoptosis, 2014, US Patent 8,648,045.

2. Mitochondria protein; anticancer agents; antiproliferative agents; viricides, 2012, US Patent 8,119,601.

3. Voltage Dependent Anion Channel (Vdac1) composition and methods of use thereof for regulating apoptosis, 2012, United States Patents, US8119601 B1.

4. Voltage Dependent Anion Channel (Vdac1) Compositions and Methods of Use Thereof for Regulating Apoptosis, 2008, European Patent Application EP1856145, 20080274962.

Membership in Professional Societies

2/2019- present	Cancer Epigenetics Society
6/2015-present	International Society for Ethnopharmacology
1/2012-present	European Association for the Study of Diabetes (EASD)
1/2010-present	The Israeli Society for Complementary Medicine
1/2002-12/2005	Israel Society for Cancer Research

Membership in Professional Committees

1. Member of The Arab American University Higher Appointments Committee, 2019-present.
2. Member of the Academic Higher Council at Al-Qasemi Academy, 2023 – present.
3. Member of the Forensic Bio-Sciences B.Sc. program committee, The Arab American University, 2019-now.
4. Member of Al-Qasemi Appointments Committee, 2019-2020.
5. Head of the committee for "life sciences and medicine" at the Scientific Research Council; the Ministry of Higher Education, Palestine; 2018-present.
6. Member of the Palestinian National Research strategy committee, 2018-present.
7. Member of the Palestinian Academy for Sciences and Technology (PALAST), 2018-present.
8. Head of the Biology M.Sc. program committee, The Arab American University, 2016-2020.
9. Research committee member, The Arab American University, 2018-now.
10. Faculty council member, The Arab American University, 2016-2017.

11. Research and Social committee member, The Arab American University, 2015-2016.
12. Member of a conference scientific committee "The 4th Conference of Biotechnology Research and Application in Palestine",2015-2016
13. Member of steering committee, Qstart-PresenTense, Israel (a new ideas accelerator), 2014 – 2016.
14. Head of the committee for Green College – Al-Qasemi, 2013- present.
15. Head of Scientific committee, The Arab American University, 2013-2014.
16. Head of the assessment committee for Al-Qasemi Sciences and Engineering College, 2012-2013.
17. Head of the academic centers assessment committee, Al-Qasemi Academy, 2011-2012.
18. Member of the Academic Council at Al-Qasemi Academy, 2013 – 2019.
19. Team Leader (representing Al-Qasemi) for developing collaborations with Hillel-Yaffe Hospital for para-medical programs, 2013-2014.
20. Team Leader (representing Al-Qasemi) for developing collaborations with The Arab American University for para-medical programs, 2012-2013.
21. Member of the steering committee for designing the new building laboratories at Baka College, 2012-2013.
22. Member of the steering committee for establishing high school students' labs at Al-Qasemi 2011-2012.
23. Research ethics committee member, The Arab American University, 2012-2013.
24. Head of the scientific committee, The Arab American University, 2014-2015.

Editorial & Reviewer Experience

Editorial board membership

2020-present, Editorial board member of the 'Evidence-Based Complementary and Alternative Medicine' (eCAM); Hindawi publisher; impact factor 2.6

2020-present, Executive Guest Editor at the journal 'Current Drug Targets'; impact factor 3.5

2019-present, Editorial board member of the 'Journal of Ethnopharmacology'; impact factor 4.3

2019-present, Editorial board member of the 'Molecular Medicine Reports'; impact factor 3.0

2019-present, Editorial board member of the 'Oncology letters'; impact factor 3.0

2018-present, Editorial board member of the 'Journal of Clinical Medicine'; impact factor 4.2

Guest editor membership

2025-2026, Lead Guest Editor for a special issue entitled "Advances in Pharmacognosy and Phytochemistry: From Molecular to Pre-Clinical Insights" in the Biomolecules journal; impact factor 4.6

2024-2026, Lead Guest Editor for a special issue entitled "Phytochemical and Pharmacological Evaluation of Anti-Diabetic Medicinal Plants" in the Molecules journal; impact factor 4.9

2020-2023, Guest editor at the journal 'Oxidative Medicine and Cellular Longevity'; impact factor 6.5

2020-2021, Lead Guest Editor for a special issue entitled "Phytochemical and Pharmacological Evaluation of Natural Products" in the Molecules journal; impact factor 4.9

2020-2021, Lead Guest Editor for a special issue entitled "Computer-Aided Drug Design of Natural Candidates for the Treatment of Non-Communicable Diseases" in the eCAM (Evidence-Based Complementary and Alternative Medicine) journal; impact factor 2.6 (***Among the three best eCAM special issues for 2021)***

2020-2021, Guest Editor for a special issue entitled "Middle Eastern Natural Products in the Management of Diabesity and its Complications" in the eCAM (Evidence-Based Complementary and Alternative Medicine) journal; impact factor 2.6

2017-2018, Lead Guest Editor for a special issue entitled "Diabetes and metabolism disorders medicinal plants: a glance at the past and a look to the future" in the eCAM journal; impact factor 2.6

2016-2017, Lead Guest Editor for a special issue entitled "Medicinal Plants and Natural Active Compounds for Cancer Chemoprevention/Chemotherapy" in the eCAM journal; impact factor 2.6

2015-2016, Lead Guest Editor for a special issue entitled "Natural active ingredients for diabetes and metabolism disorders treatment" in the eCAM journal. Impact factor 2.6

2014-2015, Lead Guest Editor for a special issue entitled "Medicinal plants and natural active compounds for diabetes and/or obesity treatment" in the eCAM journal. Impact factor 2.6

Review duties for journals

2023-present, Reviewer of manuscripts for 'Journal of Functional Foods'; impact factor 5.2

2023-present, Reviewer of manuscripts for 'Plants'; impact factor 4.5

2023-present, Reviewer of manuscripts for 'International journal of food properties'; impact factor 3.4

2021-present, Reviewer of manuscripts for 'Foods'; impact factor 4.4

2021-present, Reviewer of manuscripts for 'Pharmacology'; impact factor 2.5

2021-present, Reviewer of manuscripts for 'Molecular diversity'; impact factor 2.2

2020-present, Reviewer of manuscripts for 'Cell Death & diseases'; impact factor 8.5

2020-present, Reviewer of manuscripts for 'Antioxidants'; impact factor 6.3

2020-present, Reviewer of manuscripts for 'Scientific Reports'; impact factor 4.4

2019-present, Reviewer of manuscripts for 'Cells'; impact factor 6.6

2019-present, Reviewer of manuscripts for 'Journal of Clinical Medicine'; impact factor 4.2

2019-present, Reviewer of manuscripts for the journal 'Processes'; impact factor 2.8

2019-present, Reviewer of manuscripts for 'Biomolecules'; impact factor 4.9

2018-present, Reviewer of manuscripts for 'Nutrients' Journal; impact factor 5.7

2018-present, Reviewer of manuscripts for 'International Journal of Molecular Medicine'; impact factor 4.1

2018-present, Reviewer of manuscripts for 'Saudi Pharmaceutical Journal' l; impact factor 4.3

2018-present, Reviewer of manuscripts for 'Journal of Herbal Medicine'; impact factor 3.0

2018-present, Reviewer of manuscripts for 'Medicina'; impact factor 2.4

2017-present, Reviewer of manuscripts for 'International Journal of Molecular Sciences' journal; impact factor 5.9

2017-present, Reviewer of manuscripts for 'Journal of Bioenergetics and Biomembranes' journal; impact factor 2.9

2017-present, Reviewer of manuscripts for 'Molecules' journal; impact factor 4.9

2017-present, Reviewer of manuscripts for 'International Journal of Oncology'; impact factor 5.7

2017-present, Reviewer of manuscripts for 'Oncology letters'; impact factor 3.0

2017-present, Reviewer of manuscripts for 'Current pharmaceutical analysis', impact factor 0.9

2017-present, Reviewer of manuscripts for 'Molecular medicine reports' journal; impact factor 3.0

2014-2017, Reviewer of manuscripts for the 'OMICS Publishing Group'.

2013-2017, Reviewer of manuscripts for 'British Journal of Pharmaceutical Research' (BJPR).

2012-present, Reviewer of manuscripts for 'European Journal of Medicinal Chemistry'; impact factor 6.5

2012-present, Reviewer of manuscripts for the 'Journal of Basic and Clinical Physiology and Pharmacology (JBCPP)'; impact factor 1.7

2011-present, Reviewer of manuscripts for 'eCAM' journal; Impact factor 2.6

2010-2012, Reviewer of manuscripts for 'JAMI'A'.

2007-2008, Reviewer of manuscripts for the 'Journal of General Physiology'; impact factor 4.1

Other Scientific Activities

7/2023-present, Peer reviewer for Qatar National Research Fund**.**

3/2016-3/2020, Management Committee member of European Cooperation in Science and Technology (COST) Action N°CA15129, entitled "Diagnosis, Monitoring and Prevention of Exposure-Related Noncommunicable Diseases (DiMoPEx)".

12/2022-10/2026, Management Committee member of European Cooperation in Science and Technology (COST) Action N°CA21116, entitled "Identification of biological markers for prevention and translational medicine in pancreatic cancer (TRANSPAN)".

Organization of International Conferences

1. Organizing Committee Member of "International Conference on Diabetes and Endocrinology"; Jakarta, Indonesia; November 2019.
2. Member of the scientific committee of "Integration of Traditional Medicine in Research and Clinic", Al-Qasemi Academic College, Baqa, Israel; May 2011.
3. Member of the scientific committee of "The First Regional Scientific Conference on Traditional Arabic and Islamic Medicine", Al-Qasemi Academic College, Baqa, Israel; January 2010.

Special invitations

1. July 2024, invited visiting Scientist at Prof. Laurent Martiny lab; University of Reiems, France. Collaboration in the project: "Impact of bio-sourced molecules on slowing down of premature aging of elastic fibers induced by diabetes"
2. September 2017, invited visiting Scientist at Prof. Cedric Lhoussaine lab; The University of Science and Technology of Lille; Lille, France. Collaboration in the project: "Medicinal plants anti diabetic active ingredients: isolation, protein target and mechanism(s) of action".
3. July, 2017, Invited "Key Note Speaker" at the International Conference on Science and Society 2017, "Phytomedicine and Biopiracy" ICSS-2017 Mainz, Germany.
4. May 2015, a session chair "Naturaceuticals and Dietary Supplements Traditional to Modern" at the conference "The 15th International Congress of the International Society for Ethnopharmacology". Petra, Jordan.
5. July-September 2014, invited visiting Scientist, three months at the Klip lab; The Hospital for Sick Children, Program in Cell Biology, Totonto, ON, Canada. Participating in the project: "inflammatory pathways and its impact on apoptosis induction and Diabetes complication".

6. 2013-2018, external examiner for M.Sc. thesis, Al-Najah National University, Nablus.
7. 2010-2013, Media appearances (Channel 10 , 2, 33 , radio, Arabic and Hebrew channels), to represented the College and the Research Center.
8. July 2010, invited visiting Scientist, one month at the Klip lab; The Hospital for Sick Children, Program in Cell Biology, Totonto, ON, Canada. Participating in Insulin Resistance Treatments project.

Supervision

PhD Students:

1. Najlaa Basalat (2021-present) "Identification of protein targets of natural anti-diabetic active compounds". Co-supervisor: Prof. Jörg Labahn, Heinrich-Heine-University, Düsseldorf, Germany
2. Aziz Tumeh (2020-2024) "Activation of cancer-selective proapoptotic pathway and structural characterization of proapoptotic Par-4 protein". Co-supervisor: Prof. Jörg Labahn, Heinrich-Heine-University, Düsseldorf, Germany.
3. Sliman Qiadan (2013-2020) "Novel anti-diabetic natural drug candidates: from herbs to identification of chemical structure and molecular mechanism". Co-supervisor: Prof. Yoel Sasson (lead supervisor; The Hebrew University, Jerusalem).
4. Abdalsalam Kmail (2013-2016) "Greco-Arab traditional anti-diabetic and anti-inflammatory treatments: from herbs to molecular mechanisms" Co-supervisor: Prof. Bashar Saad (QRC) and Prof. Badiaa Loyssi, (lead supervisor; University of Fez, Morocco).

M.Sc. Students:

5. Siwar Abo Saiefen (2023-present) "Molecular mechanisms controlling insulin signaling: Computational and bioinformatic approaches" Co-supervisor: Prof. Birgit Strodel, Institute of Biological Information Processing, Research Centre Jülich, Germany.
6. Shahlaa Abd Algeny- Mahamid (2023-2025) "Prevalence of Monoclonal Gammopathy of Undetermined Significance (MGUS) among Elderly People in the Northern Districts of the West Bank-Palestine." Co-supervisor: Dr. Fikri Samara, AAUP.

7. Sally Aljoudeh (2022-2025) "Abelmoschus Esculentus, Hypericum Triquetrifolium, Ocimum Basilicum, and Gundelia Tournefortii antidiabetic plants extract regulates the expression of genes involved in glucose uptake and insulin signaling cascade in L6 muscle cells".
8. Heba Kamil (2021-2024) “Structural characterization of gamma-secretase”. Co-supervisor: Prof. Jörg Labahn, Heinrich-Heine-University, Düsseldorf, Germany.
9. Asmaa Alhamdan (2021- 2024) “The Structure of Non-Hemolytic Phospholipase C (PLcN) in Pseudomonas aeruginosa” Co-supervisor: Prof. Jörg Labahn, Heinrich-Heine-University, Düsseldorf, Germany.
10. Sondos Mnaizel (2021-2024) “The efficacy of *Gundelia tournefortii* and *Ocimum basilicum* methanol extracts in diabetes treatment *in vivo”*, Co-supervisor: Dr. Feras Albatta, AAUP, Jenin.
11. Shahd AbuNaim (2021-2023) " In silico insights into natural ligands affecting the insulin signaling pathway, subsequently the glucose uptake in L6 skeletal muscle cell line" Co-supervisor: Dr. Siba Shanak, AAUP, Jenin
12. Raghad Al-Bzor (2017-2019) “Medicinal Plants as a Source of Inhibitors of the Digestive Enzymes: Alpha-glucosidase, Alpha-amylase and Pancreatic Lipase”; Al-Najah National University, Nablus.
13. Shahinaz Mahajna (2014-2016) “*In vitro* evaluation of *H.triquetrifolium and P.harmala* extracts on colon cancer cell line: Apoptosis induction and cell cycle arrest”; Co-supervisor: Prof. Doron Ginsberg (Bar Ilan University, Tel-Aviv, Israel).
14. Aziz Tumeh (2013-2015) “*In Vitro* Evaluation of Apoptotic induction in Cancer Cell lines by *Hypericum triquetrifolium* and *Arum palaestinum*”; Al-Najah National University, Nablus.
15. Said Khasib (2011-2013) “*In vitro* evaluation of the apoptotic and antimitotic (cytostatic) effects of Arum Palaestinum and Peganum Harmala”; Co-supervisor Dr. Ashraf Sawaftah (Al-Najah National University, Nablus).

Tens of semester Projects **(undergraduate biotechnology students)**

Teaching Experience

2018-present: **Full Professor;** Arab American University, Jenin.

2013-2018: **Associate Professor;** Arab American University, Jenin.

2010-2013: **Assistant Professor;** Arab American University, Jenin.

2009-present: Senior Lecturer; Al-Qasemi Academic College, Baka, Israel.

2008-2009: Lecturer; Al-Qasemi Academic College, Baka, Israel.

2008-2009: Research Associate; The Department of Life Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

2008-2009: Lecturer (Biochemistry) Achva College.

2002-2004: **Students Lab coordinator**; Students laboratory course (advanced biochemistry), Dept.of Life Sciences, Ben-Gorion University (BGU), Israel.

1998-2002: **Teaching assistant**; Dept. of Life Sciences, BGU, Israel.

1998-2005: **Biology teacher and coordinator** at high school ("Bagrut" students); Kosaife village, Israel

Courses taught

Biochemistry (basic & advanced), Bioinformatics; Protein engineering, Advanced & Basic Biochemistry lab, Biotechnology, Medicinal plants, Pharmacology.

Technical experience

Protein and Biochemical •cell fractionation •enzyme assays •western blots •ELISA •protein chromatography (ion-exchange, gel-filtration, and affinity) •SDS-PAGE •protein phosphorylation assays • Proteoliposomes preparation • proteins Pull-down Immunoprecipitation.

Molecular and cellular •PCR • DNA libraries (cDNA and genomic) • site-directed mutagenesis • DNA sequencing • protein knock-down (siRNA) • epitope tagging • protein expression • microscopy (light, fluorescence, and immunofluorescence) • database mining.

Tissue culture • Mammalian Tissue culture (two major metabolic diseases cell culture models: Cancer and diabetes) • Yeast and bacteria.

Animal biochemistry and metabolism • study of carbohydrate metabolism in rats. Design animal experiments, primary cell culture.

Publications

Articles in Refereed Journals

In preparation articles

1. Melamed S Basalat N., Kadan S., **Zaid H.** and Tietel Z., (2025) TEF cereal anti-diabetic efficacy: Chemical composition and GLUT4 translocation to the surface of muscle cells.
2. Basalat N., Kadan S. Cohen G., Tietel Z., Melamed S. and **Zaid H.** (2025) Chemical constituents and their pharmacological activities of root and areal extracts from Cichorium intybus and cichorium pumilum.
4. Basalat N., Melamed S., Kadan S., Cohen G., **Zaid H.** and Tietel Z., (2025) Gracilaria conferta anti-diabetic activity: Extracts chemical composition, GLUT4 activity and *in vivo* efficacy.
5. Basalat N., Kadan S. Tietel Z., Melamed S. and **Zaid H.** (2025) Chemical constituents and their pharmacological activities of root and areal extracts from Cichorium intybus and cichorium pumilum.
6. Basalat N., Sati S., Shanak S. and **Zaid H.** (2025) *In vitro* and *in silico* evaluation of three fatty acids inhibitory action on alpha-glucosidase and alpha-amylase.
7. Basalat N., Amer R. and Zaid H. (2025) Evaluation of Myristic acid palmitic acid and stearic acid on GLUT4 activity and diabetic mice treatment.
8. Basalat N., Sati S., Mnaizel S., Strodel B. and **Zaid H.** (2025) Benzoic acids derivates anti diabetic activity: in vivo, in vitro and in silico evaluation
9. Zaid J, Abu Zinea H., Dabak M., Lebdi M., Hassan N., Al-Mohor S., **Zaid H.** and Shanak S. (2025) In silico binding of flavonoid polyphenols to AKT1, PRKCA, PIK3CA kinases and P2RY12 GPCR and their role in coronary heart disease alleviation.

Submitted Articles

1. Siba Shanak, Shahd Abu Naim, Beesan AlArdah, Basalat N. and **Zaid H.** (2025) Ligand-Protein Docking of Phytochemicals in their Plausible Binding to Alpha-Amylase and Alpha-Glucosidase Enzymes and Ligand Bioavailability" *Submitted to* International J of Pharmacology, Impact factor 0.6

2. Abu Naim Sh., Alzait H., Murrar T., Murrar Tam., Basalat N., Shanak S. and **Zaid H.** (2025) In Silico Studies of the Action Mechanisms of *Gundelia tournefortii* and *Ocimum basilicum* Derivatives in Targeting Proteins (PTEN, AS160, IR, and mTOR) in the Insulin Signaling Pathway. *Submitted to* Int. J. of Data Mining and Bioinformatics, Impact factor 0.4

3. Basalat N., Kadan S., Melamed S., Tietel Z., Barriah W., Abu Arra Z., AlSharabaty H. and **Zaid H.** (2025) *In Vivo* and *In Vitro* Evaluation of the Anti-Diabetic Activity of Chemically Analyzed *Abelmoschus Esculentus* Extracts. *Submitted to* Archives of physiology and biochemistry, impact factor 2.7

Published Articles

1. Alsharabaty H., Alayasi N., Jbarin S., **Zaid H.** and Shanak S. (2025) In Silico Evaluation via the Docking of Selected Antidiabetic Phytochemicals on Proteins in the Insulin Signaling Pathway: PTP1B, IRS1 and PP2A. Int. J. of Data Mining and Bioinformatics, 29(1). 150-168; Impact factor 0.4
2. Bassalat N., Abu Naim Sh., Barriah W., Jörg Labahn J., Shanak S. and **Zaid H.** (2024) *In Vitro* and *In Silico* Evaluation of Caffeic and Ferulic Acids Involvement in the Translocation of Glucose Transporter 4. Current proteomics 21(5), 487 – 498; Impact factor 0.8
3. Tahayneh S., Qaseem B., Zakarneh H., Shanak S. and **Zaid H.** (2024) In Silico Evaluation for the Action of Gundelia tournefortii and Ocimum basilicum Derivatives on the PI3K, PDK1, AKT, and RAC1 Protein Targets in the Insulin Signalling Pathway. New Emirates Medical Journal, 5(1), 1-15; Impact factor 0.1 (cite score)
4. Bassalat N., Kadan S., Melamed S., Yaron T., Tietel Z., Karam D., Kmail A., Masalha M. & **Zaid H.** (2023). In Vivo and In Vitro Antidiabetic Efficacy of Aqueous and Methanolic Extracts of Orthosiphon Stamineus Benth. Pharmaceutics 15 (3), 945; impact factor 6.3
5. Mishra A., Sharma K., Pandey J., Dey K., Kadan S., Sahai M., Ahmad I., Srivastava A.K., Tamrakar A.K., **Zaid H.***, Maurya R.* (2023) Tinosporaside from Tinospora cordifolia encourages skeletal muscle glucose transport through both PI-3-kinase and AMPK-dependent mechanisms. *Molecules*, 28 (2), 483, impact factor 4.9 (*) corresponding authors
6. **Zaid H.**, Shanak S. and Tamrakar A.K. (2022) Computer-Aided Drug Design of Natural Candidates for the Treatment of Non-Communicable Diseases. *Evidence-Based Complementary and Alternative Medicine* (*eCAM)*, 2022, impact factor 2.6
7. Shanak S., Basalat N., Kadan S., Barghash A., Arda M. and **Zaid H.** (2022). Drug discovery of plausible lead natural compounds that target the insulin signaling pathway: Bioinformatics approaches. *Evidence-Based Complementary and Alternative Medicine* (*eCAM)*, 2022, impact factor 2.6
8. Jaradat A., Salameh Y. **Zaid H.** and Shanak S. (2022) *In Silico* Evaluation for the Inhibitory Action of Curcumin Derivatives on the SARS-COV2. *Journal of Biosciences and Medicines*, 10 (4), 63-76.

9. Al-Maharik N., Jaradat N., Basalat N., Hawash M. and **Zaid H**. (2022) Isolation, identification and pharmacological effects of Mandragora officinalis fruits flavonoid fraction. *Molecules*, 27 (3), 1046, impact factor 4.9 (cited 3).

10. Kadan S., Melamed S., Benvalid Sh, Tietel Z., Sasson Y & **Zaid H.** (2021). *Gundelia tournefortii*: fractionation, chemical composition and anti-diabetic efficacy. *Molecules* 26(13) 3785, 1-22, impact factor 4.9 (cited 1).

11. Pandey J., Dev K., Chattopadhyay S., Kadan S., Sharma T., Maurya R., Sanyal S., Siddiqi M.I., **Zaid H.(*)**, Tamrakar A.K.(*) (2021) β-Sitosterol-D-glucopyranoside mimics estrogenic properties and stimulates glucose utilization in skeletal muscle cells. *Molecules*, 26 (11) 3129, 1-16, impact factor 4.9 (*) corresponding authors. (cited 4).

12. Shanak S., Basalat N., Bzoor R., Kadan S. and **Zaid H**. (2021) *In vitro* and *in silico* evaluation for the inhibitory action of *O. basilicum* methanol extract on alpha-glucosidase and alpha-amylase. *Evidence-Based Complementary and Alternative Medicine* (*eCAM)*, 2021: 5515775; impact factor 2.6 (cited 4).

13. Adam B., Goen T., …[alphabetical listing] **Zaid H.** and Au W.W. (2021) From inequitable to sustainable e-waste processing for reduction of impact on human health and the environment. *Environmental Research*, 194: 110728; impact factor 6.5 (cited 27).

14. Mahajna H., Kadan, S., Tietel Z., Khasib S., Tumeh A., Saad B., Ginsberg D. and **Zaid H.** (2019) *In vitro* evaluation of chemically analyzed *H.triquetrifolium* extract efficacy in apoptosis induction and cell cycle arrest of HCT-116 colon cancer cell line. *Molecules*, 24(22): 1-19; impact factor 4.9 (cited 2).

15. Soumaya Touzani S., Hashem W., Imtara H., Kmail A., Kadan S., **Zaid H.**, ElArabi I., Lyoussi B.and Saad B. (2019) *In Vitro* Evaluation of the Potential Use of Propolis as a Multitarget Therapeutic Product: Physicochemical Properties, Chemical Composition, and Immunomodulatory, Antibacterial, and Anticancer Properties. *BioMed Research International* 2019:4836378; impact factor 3.4 (cited 25).

16. Kadan S., Sasson Y. and **Zaid H.** (2019) *Portulaca oleracea* L. extracts enhance GLUT4 translocation to the surface of muscle cells in insulin dependent and independent fashion. *Advancement in Medicinal Plant Research* 7(4) 85-90; impact factor 1.1

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35. Mahajna S., Azab M., **Zaid H.**, Abo Farich B., Albatah F., Mashner S. & Saad B. (2014). *In vitro* evaluations of cytotoxicity and anti-inflammatory effects of *Peganum harmala* seed extracts in THP-1-derived macrophages. *European Journal of Medicinal Plants*, (5)2, 165-175 (cited 13).

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48. Talior-Volodarsky I., Randhawa V.K., **Zaid H.** & Klip A. (2008). Alpha-actinin-4 is selectively required for insulin-induced GLUT4 translocation. *Journal of Biological Chemistry*, 283(37), 25115-25123. Impact factor 5.2 (cited 53).

49. Shoshan-Barmatz V., Keinan N. & **Zaid H.** (2008). Uncovering the role of VDAC in the regulation of cell life and death. *Journal of Bioenergetics and Biomembranes*, 40(3), 183-191. Impact factor 2.9 (cited 182)

50. Abu- Hamad S.(*), **Zaid H.(*)**, Israelson A., Nahon E. & Shoshan-Barmatz V.(2008). Hexokinase-I protection against apoptotic cell death is mediated via interaction with the Voltage Dependent Anion Channel-1: mapping the site of binding. *Journal of Biological Chem*istry, 283(19), 13482-13490. Impact factor 5.2 (cited 235) **(*) Equal contribution.**

51. Israelson A., **Zaid H.**, Abu-Hamad S., Nahon E. & Shoshan-Barmatz V. (2008). Mapping the ruthenium red-binding site of the voltage-dependent anion channel-1. *Cell Calcium*, 43(2), 196-204. Impact factor 6.8 (cited 54).

52. Israelson A., Abu-Hamad S.**, Zaid H.**, Nahon E. & Shoshan-Barmatz V. (2007). Localization of the Voltage-Dependent Anion Channel-1 Ca^{2+}-Binding Sites. *Cell Calcium*, 41(3), 235-244. Impact factor 6.8 (cited 70).

53. Yehezkel G., Hadad N., **Zaid H.,** Sivan S. & Shoshan-Barmatz V. (2006). Nucleotide-binding sites in the voltage-dependent anion channel: Characterization and localization. *Journal of Biological Chemistry*, 281(9), 5938-5946. Impact factor 5.2 (cited 55).

54. **Zaid H.**, Abu-Hamad S., Israelson A., Nathan I. & Shoshan-Barmatz V. (2005). The voltage-dependent anion channel modulates apoptotic cell death. *Cell death and differentiation*, 12(7), 751-60. Impact factor 10.7 (cited 295).

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56. **Book**:

    Saad B., **Zaid H**., Kadan S. & Shanak S. (2017). Anti-diabetes and Anti-obesity Medicinal Plants and Phytochemicals: Safety, Efficacy, and Action Mechanisms. Springer. Springer International Publishing AG 2017. ISBN 978-3-319-54101-3 (cited 56).

Book chapters

57. Saad B., **Zaid H.** & Said O. (2013). Tradition and Perspectives of Diabetes Treatment in Greco-Arab and Islamic Medicine. In Ronald R. Watson Victor R. Preedy (Eds.), *Bioactive Food as Dietary Interventions for Diabetes* (pp.319-325). San Diego, CA, USA and London, UK: Academic Press (cited 12).

58. **Zaid H.** & Saad B. (2013). State of the Art of Diabetes Treatment in Greco-Arab and Islamic Medicine. In Ronald R. Watson Victor R. Preedy (Eds.), *Bioactive Food as Dietary Interventions for Diabetes* (pp.327-335). San Diego, CA, USA and London, UK: Academic Press (cited 18).

59. Said O., **Zaid H.** & Saad B. (2011). Greco-Arab and Islamic herbal medicine and cancer treatment/prevention. In Ronald R. Watson Victor R. Preedy (Eds.), *Bioactive Foods and Extracts: Cancer Treatment and Prevention* (pp. 49-66). New York, NY, USA and London, UK: CRC Press (cited 12).

Abstracts in peer reviewed conference proceedings:

60. **Zaid H (7/2024)** Phenolic Acids as Plausible Leads in Drug Discovery for the Treatment of Diabetes. International Conference on Chemical Theories and Theoretical Chemistry, Paris, France.

61. **Zaid H.,** Basalat N., Kadan S. and Shanak S. (7/2023) Identification of potential druggable targets for antidiabetic phytochemicals: A combined in silico, in vitro and in vivo Study. Food Science and Human Nutrition (IFHN-2023), Frankfurt, Germany**.** ***Invited speaker.***

62. **Zaid H.** (2/2023) Antibacterial activity of O. Stamineus and O. Basilicum extracts against gram-positive and gram-negative bacteria. International Conference on Antimicrobial and Antibacterial Agents. Istanbul, Turkey

63. **Zaid H.** (5/2022) *In Vivo*, *in Vitro* and *in Silico* assessment for the efficacy of selected anti-diabetic phytochemicals. International Congress on Cell Science and Molecular Biology (IC-CSMB), Szczecin, Poland**.**

64. **Zaid H**. (3/2022) The Impact of Scientific Research on the Professional Career Development. Gathering for Prosperity, Nazareth, Israel. ***Invited speaker.***

65. **Zaid H.** (11/2019) Evaluation of the anti-diabetic medicinal plants fractions and phytochemicals efficacy in vitro and in vivo. International conference on Diabetes and Endocrinology, Jakarta Indonesia. ***Invited speaker &*** **International advisory board member**.

66. **Zaid H.**, Mahajna S. and Kadan, S. (10/2019) *H.triquetrifolium* Potential Anti Cancer Activity: Apoptosis Induction and Cell Cycle Arrest of Colon Cancer Cell Line and Chemical Analysis. 24th World Congress on Advances in Oncology & 24th International Symposium on Molecular Medicine, Sparta, Greece. ***Invited speaker*** **(as a guest editor in Spandidos Journals)**

67. **Zaid H.** and Kadan S. (8/2019) Antidiabetic Activity of selected Mediterranean medicinal plants. 50th International Conference on Pharma and Food (ICPAF) Istanbul, Turkey. ***Invited speaker***

68. Kadan S., Sasson Y., Saad B. and **Zaid H.** (7/2019) GLUT4 translocation test for Portulaca oleraceaL. extracts: In vitro evaluations of their anti-diabetic activity and cytotoxicity. International Conference on Medical, Biological and Pharmaceutical Sciences (ICMBPS) Istanbul, Turkey.

69. **Zaid H.** and Kadan S., Bassalat N. and Albzoor R. (4/2019) Medicinal plants and phytochemicals: A source for GLUT4 stimulators and digestive enzymes inhibitors The 5th International Mediterranean Symposium on Medicinal and Aromatic Plants, Cappadocia, Turkey. ***Invited speaker***

70. Kmail A., Saad B., Lyoussi B. and **Zaid H.** (11/2018) *Abelmoschus esculentus* L. and *Asparagus aphyllus* L. regulate blood glucose levels by improving GLUT4 membrane translocation: An *In vivo and in vitro* study. International Congress on Natural Products: From Plants to Medicaments and Bio-agriculture, Hammamet, Tunisia.

71. **Zaid H.** (9/2018) Greco-Arab herbs as a source of anti-diabetic compounds. 29th International Congress on Prevention of Diabetes and Complications, Berlin, Germany. ***Invited speaker***

72. **Zaid H.** and Kadan S. (6/2018) Novel anti diabetic phytochemicals: Isolation, protein target and mechanisms of action. 27th European Diabetes Congress, Rome, Italy. ***Invited speaker***. **Abstract published in the journal of diabetes and metabolism.**

73. Kadan S., **Zaid H.** and Sasson Y. (6/2018) Cichorium pumilum as a source of anti-diabetic compounds: Chemical composition, cytotoxicity and GLUT4 translocation. 27th European Diabetes Congress, Rome, Italy. ***Selected as a Best Poster.*** **Abstract published in the journal of diabetes and metabolism.**

74. Kadan S., Mahajna S., Saad B., Shadafny S., Sasson Y. & **Zaid H.** (4/2018) I*n vitro* evaluation of *H.triquetrifolium* and *P.harmalaextracts* efficacy in: apoptosis induction and cell cycle arrest of colon cancer cell line. The 4th International Mediterranean Symposium on Medicinal and Aromatic plants, Antalya, Turkey.

75. **Zaid H.** (2/2018) Greco-Arab anti-diabetic medicinal plants: Active ingredients and mechanism of action. International Conference on Unani Medicine, New Delhi, India. ***Invited speaker***

76. Kadan S., Sasson Y. & **Zaid H.** (9/2017) *Gundelia tournefortii* anti-diabetic efficacy: Chemical composition and GLUT4 translocation. The 9th world congress on Pharmacology: Grooming the pharmacological boundaries for drug discovery and development, Paris, France. ***Invited speaker.*** **Abstract published in the Biochemistry & Pharmacology: Open Access Journal**

77. **Zaid H.** (7/2017) Medicinal plants anti diabetic active ingredients: isolation, protein target and mechanism(s) of action. International Conference on Science and Society, "Phytomedicine and Biopiracy" ICSS-2017 Mainz, Germany. ***Invited speaker***

78. Kadan S., Sasson Y., Saad B. & **Zaid H.** (4/2017) GLUT4 translocation test for organic extracts of *Rosmarinus officinalis* L., Lamiaceae: in vitro evaluations of their anti-diabetic activity and cytotoxicity. International Symposium on Advances in Lamiaceae Science Antalya, Turkey.

79. **Zaid H.**, Saad B. & Kadan S. (9/2016) Isolation and identification of the anti-diabetic phytochemicals in *O. Basilicum*: unravelling their mechanism of action. 29th International Symposium on the Chemistry of Natural Products and the 9th International Conference of biodiversity. Izmir, Turkey.

80. Kadan S., Mawasi H., Masalha M., Sasson Y., Saad B. & **Zaid H.** (9/2016) Chemical Composition, Cytotoxicity, Antibacterial and Anti-diabetic Activities of *Teucrium polium* L. Extracts. 29th International Symposium on the Chemistry of Natural Products and the 9th International Conference of biodiversity. Izmir, Turkey.

81. **Zaid H.**, Saad B. & Kadan S. (9/2016) Medicinal plants anti diabetic active ingredients: isolation, protein target and action mechanism: *Ocimum basilicum* as a model. 6th international congress of aromatic and medicinal plants, Coimbra, Portugal.

82. Barriah W, **Zaid H.** & Najami N. (2/2016) Characterization of γ-glutamylcysteine synthetase in the salt- and oxidative stress-tolerant wild tomato species *Lycopersicon pennellii* under abiotic stresses. Plant Genes and "OMICs": Technology Developments, Vienna international conference series, Vienna, Austria.

83. Kmail A., Lyoussi B., **Zaid H.**, Imtara H., Saad B. (5/2016) Assessment of antioxidant and anti-inflammatory properties of Palestinian medicinal plants using monocultures and co-cultures of monocytes and hepatocytes. Third Symposium on analytical chemistry for sustainable development, Marrakech-Morocco.

84. Kmail A., Lyoussi B., **Zaid H.**, Imtara H., Saad B. (5/2016) Evaluation of anti-inflammatory and antioxidant effects of *Asparagus aphyllus* L., *Crataegus azarolus* L., and *Ephedra alata* Decne. in monocultures and co-cultures. Third Symposium on analytical chemistry for sustainable development, Marrakech-Morocco.

85. Mahajna S., **Zaid H.**, Daragmeh J. & Saad B. (5/2015). *Peganumharmala* seed extract modulates anti-inflammatory and pro-inflammatory cytokines release in THP-1-derived macrophages. The 15th International Congress of the International Society for Ethnopharmacology. Petra, Jordan.

86. Kaadan S**.,** Saad B. & **Zaid H.**. (5/2015). In vitro evaluations of anti-hypoglycemic, cytotoxicity and chemical identification of methanol sweet basil extract. The 15th International Congress of the International Society for Ethnopharmacology. Petra, Jordan.

87. Kmail A., Lyoussi B., **Zaid H.** & Saad B. (5/2015) Cytotoxic and cytostatic activity of *Asparagus aphyllus*, *Crataegus aronia* and *Ephedra alata* in hepatocytes and THP-1-derived macrophages in mono- and co-cultures *in vitro*. The 15th International Congress of the International Society for Ethnopharmacology. Petra, Jordan.

88. Kadan S., **Zaid H.**, Saad B. and Sasson Y. (2/2015). Chemical composition, anti-diabetic activity and cytotoxicity of three organic

extracts of ocimum basilicum: an in vitro study. The 80th annual meeting of the Israel chemical society. Tel-Aviv, Israel.

89. **Zaid H.,** Mahajna S., Khasib S. & Saad B. (3/2014). *Pergamum harmala* and *Hypericum triquetrifolium* extracts induce apoptosis in human colon cancer cells through activation caspase 3. The 5th International Congress in Medicinal and Aromatic Plants, Zarzis, Tunisia.

90. Saad B., Kadan S. ,Kmail A. & **Zaid H.** (3/2014). *Atriplexm, Trigonella foenum-graecum* and *Urtica dioica* enhance glucose disposal by skeletal muscle. The 5th International Congress in Medicinal and Aromatic Plants, Zarzis, Tunisia.

91. Mahajna S., **Zaid H.**, Abo Farich B., Al Battah B. & Saad B. (3/2014). *Peganumharmala* seed extracts promotes anti-inflammatory responses in THP-1-derived macrophages. The 5th International Congress in Medicinal and Aromatic Plants, Zarzis, Tunisia.

92. Khasib S., Mahajna S., Saad B. & **Zaid H.** (6/2014). Cytotoxic and apoptotic effects of Arum palaestinum and Peganum harmala. BERC 3rd Conference on "Bio-Exploration of Valuable Natural Products Derived from Palestinian Flora:From Biodiversity to Bioindustry", Nablus, Palestine.

93. Kadan S., Kmail A., Saad B. & **Zaid H.** (6/2014). *In vitro* antidiabetic Activity of three medicinal plants. BERC 3rd Conference on "Bio-Exploration of Valuable Natural Products Derived from Palestinian Flora:From Biodiversity to Bioindustry", Nablus, Palestine. ***Invited speaker***

94. **Zaid H.** (7/2013) Diabetes type II among Arab women: Prevalence and medicinal treatment. The Israeli society of medicinal plants national meeting, "Eilam", Tel Aviv, Israel. ***Invited speaker***

95. Kadan S., Saad B., Kmail A., Khasib S. & **Zaid H.** (11/2012). In-vitro evaluation of safety and efficacy of Greco-Arab and Islamic-based anti-diabetic medicinal plants. The 3rd International Symposium on Medicinal Plants, their Cultivation and Aspects of Uses, Petra, Jordan. ***Invited speaker***

96. Mahajna S., Hadieh B., **Zaid H.**, Abo-Farich B. Yoram S., Said O. & Saad B. (11/2012). The The anti-psoriatic effects of *Hypericum triquetrifolium* and *Peganum harmale* -derived factors are mediated by down regulation of pro-inflammatory cytokines and up regulation of apoptosis. The 3rd International Symposium on Medicinal Plants, their Cultivation and Aspects of Uses, Petra, Jordan.

97. Kadan S., AboFarech B., **Zaid H.** & Saad B. (12/2012). Anti-Oxidative and anti-diabetic plants action mechanism. Israel–Jordan Research Cooperation Conference, Aqaba, Jordan. ***Invited speaker***

98. Hadieh B, Masalha M, **Zaid H**, Abo Farich B, Said O & Saad B (2011). Anti-Inflammatory effects of herbal-derived factors are mediated by down

regulation of pro-inflammatory cytokines. New special volume for the second conference on Biotechnology and its application in Palestine.

99. **Zaid H.** (5/2011). Obesity and diabetes: Morbidity and Treatment with Herbal Medicine. Joint Conference of the Israeli Society for Complementary Medicine of the Israel Medical Association and Al-Qasemi Research Center. Baka, Israel. ***Invited speaker***

100. **Zaid H.,** Said O & Saad B. (9/2010). Arab Herbal Medicine-based Combination of Four Anti-Diabetes Plants Stabilizes a Physiological Blood Glucose Level. The 46th European Associations for the Study of Diabetes (EASD) Annual Meeting, Stockholm, Sweden. **Published in the Diabetologia Journal, Vol. 53.**

101. Hadieh B., **Zaid H.**, Abo-Farich B., Abo-Much A., Said O., Milner Y. & Saad B. (11/2010). The anti-psoriatic effects of herbal-derived factors as new drugs for combined psoriasis therapies. Israel–Jordan Research Cooperation Conference – Aqaba, Jordan. ***Invited speaker***

102. **Zaid H.**, Said O & Saad B. (9/2010). Palestinian Plants Increase glucose disposal by skeletal muscle cell line. The 2nd Conference on Biotechnology Research and Applications in Palestine. An-Najah National University, Palestine. ***Invited speaker***

103. **Zaid H.** & Klip A. (6/2007). GAPDH and Hexokinase-II interaction with GLUT4: A possible GLUT4-Metabolon. The American Diabetes Association (ADA) 67th scientific Session. Chicago, IL, USA. **Published in Diabetes . Jun2007 Supplement 1, Vol. 56, pA660-A660.**

104. **Zaid H.,** Talior I. & Klip A. (10/2006). GAPDH-GLUT4 interaction: characterization and possible function in insulin-regulated glucose uptake. 10th Annual CDA/CSEM Professional Conference and Annual Meetings. Toronto, Ontario, Canada.

105. **Zaid H.,** Talior I & Klip A. (5/2006). Characterization of GLUT4-GAPDH binding sites and possible implications for glucose uptake. 49th Annual Meeting and Conference of the Canadian Society of Biochemistry, Molecular and Cellular Biology. Niagara-on-the-Lake Ontario, Canada. **Published in the Biochemistry and Cell Biology Journal, Vol. 84(6), 1073-1074.**

106. **Zaid H.**, Abu-Hamad S & Shoshan-Barmatz V. (4/2005). Identification of Hexokinase-I and ruthenium red binding sites in the Voltage Dependent Anion Channel. The 14th International Symposium on Calcium and Calcium Binding Proteins in Health and Disease. Banff, Alberta, Canada.

107. Israelson A., **Zaid H.** & Shoshan-Barmatz V. (4/2005). Azido ruthenium specific labeling of Ca^{2+}-binding proteins and localization of VDAC Ca^{2+}-binding sites. The 14th International Symposium on Calcium and Calcium Binding Proteins in Health and Disease. Banff, Alberta Canada.

108. Abu-Hamad S., **Zaid H.** & Israelson A. and Shoshan Barmatz V. (1/2005). The voltage-dependent anion channel modulates apoptotic cell

death. Zlotowski Center for Neuroscience annual retreat. Mitzpe Ramon, Israel. **EXCELLENT POSTER PRESENTATION AWARD**.

109. Shoshan-Barmatz V., **Zaid H.**, Abu-Hamad S. & Israelson A. (2/2005). A single mutation in VDAC prevents the interaction of hexokinase and ruthenium red with VDAC and their protective effect against apoptotic cell death. Biophysical Society 49th Annual meeting. California, US. **Published in the BIOPHYSICAL JOURNAL, 2005, 177A.**

110. Abu-Hamad S., **Zaid H.**, Israelson A. & Shoshan Barmatz V. (9/2004). The voltage-dependent anion channel modulates apoptotic cell death. Annual meeting of the Israel Society for Physiology and Pharmacology. Maaleh Hahamisha, Israel. **EXCELLENT POSTER PRESENTATION**.

111. **Zaid H.**, Abu-Hamad S., Israelson A. & Shoshan-Barmatz V. (7/2004). The voltage-dependent anion channel modulates apoptotic cell death. The 8th European Calcium Society Conference. Cambridge, UK.

112. **Zaid H.**, Israelson A., Sivan S. & Shoshan-Barmatz V. (10/2003). Divalent Cation/Calcium Binding Sites in VDAC: Identification, Localization and Function in the Regulation of the channel Activities. Israel Society for Physiology and Pharmacology 2003 annual meeting. Ma'ale Hahamisha, Israel **Published in the supplement to the Biophysical Journal, February 2003, Vol. 84 (2), 322A-323A.**

113. Shoshan-Barmatz V., Gincel D., **Zaid H.** & Yehezkel G. (7/2002). VDAC possesses ATP and divalent cations binding sites that regulate mitochondrial PT. Membrane Transport Proteins: Physiological & Pathological Implications, Gordon Research Conference.

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