



Aug 7th 2021

YEALA SHAKED - CURRICULUM VITAE

PERSONAL DETAILS

Born in Israel, 1971
Israeli nationality; ID: 0280921288; Married with 2 children
Military service 1989-1991 (Bet Sefer Sada Mt. Hermon)
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HIGHER EDUCATION

- 1994-1997: B.Sc. Environmental Studies & Earth Sciences; The Hebrew University. Graduated *cum laude*
- 1997-2002: Ph.D. Environmental Studies and Earth Sciences (direct track); The Hebrew University. Advisors: Prof. Yigal Erel (HU) and Prof. Assaf Sukenik (IOLR).
Dissertation: Iron redox dynamics and biogeochemical cycling in the epilimnion of Lake Kinneret.
- 2002-2005: Postdoctoral Research Associate; Princeton Environmental Institute, Department of Geosciences, Princeton University. Host: Prof. Francois Morel. *Theme: Kinetics and mechanisms of trace metals and major nutrients acquisition by marine phytoplankton.*

APPOINTMENTS AT THE HEBREW UNIVERSITY

- 2005-2010: Lecturer, Earth Sciences Institute and Interuniversity Institute for Marine Sciences in Eilat, Biogeochemistry
- 2010- 2015: Senior Lecturer, Earth Sciences Institute and Interuniversity Institute for Marine Sciences in Eilat, Biogeochemistry
- 2015-2021: Associate Professor, Earth Sciences Institute and Interuniversity Institute for Marine Sciences in Eilat, Biogeochemistry
- 2021-present: Full Professor, Earth Sciences Institute and Interuniversity Institute for Marine Sciences in Eilat, Biogeochemistry

ADDITIONAL FUNCTIONS & TASKS AT THE HEBREW UNIVERSITY

- 2017-present Head of the Graduate Department of Oceanography
- 2018-present Screening Committee for Doctoral Students, Inst. of Earth Sciences



2019-present Screening Committee for Faculty Members, Inst. of Earth Sciences

2020-present Screening Committee for Master Students, Inst. of Earth Sciences

INVOLVEMENT IN INTERNATIONAL ACTIVITY

1. **Full member of SCOR working group FeMIP:** Iron Model Inter-comparison Project (<https://scor-int.org/group/151/>). 2016-present.
2. **Member of GEOTRACES Scientific Steering Committee.** An international study of the biogeochemical cycles of trace metals and isotopes in the ocean (<https://www.geotraces.org/>). 2017-present. Annual SSC meetings across the globe, where I present Israel's activities and research efforts I lead on synthesis of the program data.
3. **Set-up team of the international program BIOGEOSCAPES.** Evolving multi-disciplinary study of ocean metabolism and nutrient cycles on a changing planet (<https://www.biogeosciences.org/>). 2017-present. Set up meetings during international conferences and a dedicated workshop at Woods Hole Oceanographical Institute (Nov 2018)
4. **Steering committee** of the 7th Kaplan symposium Trace in the Sea – Trace Elements and their Isotopes in the Ocean (<https://www.euromarinetwork.eu/activities/7th-kaplan-symposium>). 2019. Eilat.
5. **External PhD examiner.** 2019. Observatoire Océanologique de Banyuls Sur Mer, France.
6. **Member of the Chinese “101” program.** State Key Laboratory of Marine Environmental Science at Xiamen University. Collaborative research and teaching, student co-advising students, and staff/student training activities. 2020 -present.
7. **Review Editor.** Frontiers in Microbiological Chemistry. 2011-present
8. **Guest lecturer.** Ocean Science & Technology course. 2021-present. Benaras Hindu Univ, India
9. **Plenary Lecture.** GEOTRACERS synthesis workshop: Biogeochemical Cycling of Trace Elements within the Ocean (<https://web.whoi.edu/geotraces-synthesis/>). 2016. Lamont-Doherty Earth Observatory, NY. **Discussion group leader** on iron bioavailability that resulted in two publications.
10. **Invited speaker.** Goldschmidt Geochemistry Conference. 2015. Prague, Czech Republic
11. **Invited participant.** Royal Society, Discussion Meeting: Biological and climatic impacts of ocean trace element chemistry. 2016. London, UK.
12. **Invited participant.** SOLAS/ESA Workshop: Harnessing Remote Sensing to Address Critical Science Questions in the Ocean-Atmosphere Interface. 2016. Francati, Italy
13. **Invited talk.** SCOR FeMIP workshop. 2018. Portland. USA.
14. **Invited talk.** 4th Xiaman Symposium on Marine Environmental Sciences. 2019. China.
15. **Invited talk.** Marine Particles and Phycospheres workshop. 2019. Ascona, Switzerland.
16. **Invited Participant.** Southern Ocean Biogeochemistry in a Changing World workshop. 2020. Hobart, Australia.
17. **Invited speaker.** SOLAS/SCOR Workshop: Iron at the Air-Sea Interface. 2021. Ashville, US. (July, hopefully on site).
18. **Invited talk.** ASLO Summer Meeting. 2021. Spain (June, virtual meeting).



19. **Initiating and chairing sessions in major conferences.** ASLO 2018 (Portland), Xiaman Marine Environmental Sciences Symposium 2019 (China), ASLO 2021 (Spain)
20. **Invited seminar.** University of British Columbia, Department of Earth, Ocean and Atmospheric Sciences. 2016. Vancouver, Canada.
21. **Invited seminar.** The Biodiversity Research Centre, University of British Columbia. 2017. Vancouver, Canada.
22. **Invited seminar.** University of Washington, School of Oceanography. 2017. Seattle, US.
23. **Invited seminar.** 2019. Observatoire Océanologique de Banyuls Sur Mer, France.

MANUSCRIPTS AND PROPOSALS REVIEW

Peer-review journals: Science, Nature, Environmental Science & Technology; Marine Chemistry; Limnology & Oceanography; Journal of Phycology; Microbial Ecology; Journal of Geophysical Research-atmosphere; Analytica Chimica Acta; Chemosphere, Sensors, Journal of Sea Research, Deep Sea Research, Aquatic Biology, Biogeosciences, Environmental Microbiology, Environmental Microbiology Reports, Frontiers in Microbiological Chemistry, Frontiers in Marine Sciences, ISME, Plos One, Scientific Reports

Proposals for funding agencies: NSF, Swiss National Science Foundation, French National Foundation, Betty and Moore foundation, Schmidt Foundation, ISF, MOST

OUTREACH ACTIVITIES

- 2019 Scientific exposure cruises in the Mediterranean and Red Sea for undergraduate students from HU and other Israeli universities (organizer & instructor)
- 2020 Lecturer in the “Scientists Night” public event
- 2020 Lecturer in the ES high school climate change program (“one and a half degree”)
- 2020 Hands-on marine science education program for high-school chemistry majors in Eilat (program establishment and instruction)

REVIEW PANELS

Review panel member for Fulbright researcher exchange program (post-docs-2018, seniors -2017)
Scientific/Referee Committee member for one of MOST research grants (2017)
Scientific/Referee Committee member for ISF (2015/16, 2018/19, 2019/20)

OTHER ACTIVITIES

- 2009 – 2013 Member of COST action ES801 (The ocean chemistry of bioactive trace elements and paleoclimate proxies)
- 2010 – 2012 Collaborator in the ESF Research Networking Program: The Functionality of Iron Minerals in Environmental Processes (FIMIN)
- 2013 – 2016 Steering committee of the Israel Association for Aquatic Sciences



- 2014 Steering committee of the 5th Kaplan symposium 'Biogeochemistry: Where Earth Sciences meets Biology
- 2018, 2019 Member of several promotion committees (Haifa University, IOLR), external PhD examiner (Haifa University)
- 2020-present Steering committee of the Israel Geological Society annual meeting
- 2021 -present President of the Israel Association for Aquatic Sciences

RESEARCH GRANTS

- 2006 Ring Foundation for Environmental Studies, Hebrew University. "Linking phytoplankton's iron homeostasis and iron recycling in the ocean" with Prof. Keren
- 2007-2009 United States–Israel Bi-national Science Foundation (BSF) Startup program, "Availability of organically bound iron to marine phytoplankton" with Prof. Francois Morel
- 2007-2011 Israel Science Foundation (ISF), "Atmospheric iron inputs to the ocean: Can phytoplankton significantly affect aerosol Fe solubility and redox chemistry?"
- 2009 Israel Science Foundation (ISF), Institutional basic equipment grant. "*In situ* measuring and sampling system for oceanography", leading PI with Profs. Lazar and Berman-Frank
- 2011 Ring Foundation for Environmental Studies, Hebrew University. "Iron Acquisition Strategies of Open Ocean Phytoplankton" with Prof. Keren
- 2009-2013 United States–Israel Binational Science Foundation (BSF), "Iron bioavailability to phytoplankton: do different taxa share similar uptake mechanisms?" with Prof. Francois Morel
- 2011-2015 Israel Science Foundation (ISF), "Dynamics of Reactive Oxygen Species in Coral Reefs– Sources, Sinks and Roles"
- 2015-2019 Israel Science Foundation (ISF) research grant. "Bioavailability of particulate iron to planktonic cyanobacteria"
- 2017-2020 German-Israeli Foundation for Scientific Research and Development (GIF) research grant (with Profs. Gledhill and Achterberg). "Dust iron utilization by natural *Trichodesmium* colonies"
- 2018-2021 Israel Science Foundation (ISF) – National Science Foundation China (NSFC) research grant (with Prof. Dalin Shi). "Primary Production in the Changing Ocean - Effects of Ocean Acidification on *Trichodesmium* metabolism and iron utilization from dust"
- 2018-2021 FICUS award for research at the National US facilities EMSL and JGI (with Drs. Boiteau, Stuart and Gledhill). "Interactive mechanisms of mineral dissolution by a microbial consortia" (https://jgi.doe.gov/our-projects/csp-plans/approved-proposals-fy19/#ficus_jgi-emsl)
- 2021-2025 Israel Science Foundation. "Dust as a source of Phosphorus to *Trichodesmium*, a globally important marine nitrogen fixer"



TEACHING AND MENTORING AT THE HEBREW UNIVERSITY

DOCTORATE DEGREE STUDENTS

- 2017-present Siyuan Wang
- 2011-2018 Nivi Kessler (with Prof. Nir Keren, currently at the Israel Water Authorities)
- 2010-2015 Chana Kranzler (with Prof. Nir Keren, continued to a direct PhD, Currently a researcher at Bar Ilan Univ.)
- 2009-2014 Hagar Lis (with Prof. Nir Keren, currently a Researcher-Teacher at HUJI and IASA)
- 2005-2012 Efrat Meeder (with Prof. Boaz Lazar, currently an environmental advisor and chemistry teacher)

MASTER DEGREE STUDENTS

- 2019-present Roi Feinstein
- 2015-2017 Uria Tal (with Dr. Alon Amrani, currently a teacher)
- 2011-2013 Yaron Halevy
- 2010-2013 Guy Levi (with Prof. Nava Moran)
- 2008 – 2010 Chana Kranzler (with Prof. Nir Keren, continued to a direct PhD, Currently a researcher at Bar Ilan Univ.)
- 2007 – 2009 Hagar Lis (continued to a direct PhD)
- 2007 – 2009 Eldad Saragosti (with Prof. Dan Tchernov)
- 2007 – 2009 Maxim Rubin (with Prof. Ilana Berman-Frank, currently an IOLR researcher)

UNDERGRADUATES – GUIDED RESEARCH PROJECTS (YEAR-LONG)

- 2018 Omer Segal (continued to Msc at TU)
- 2012 Avi Schneider (continued to MSc and PhD at HUJI)
- 2009 Adi Katzir
- 2007 Raviv Harris (continued to MSc and PhD at TU)
- 2006 Nir Kedem-Klein, (continued to MSc and PhD at Weizmann)
- 2006 Dina Pinkus

POST-DOCTORAL FELLOWS

- 2020-present Dr. Futing Zhang (winner of the PBC post-doc award)
- 2020-present Dr. Coco Koedooder (with Dr. Maxim Rubin)
- 2018-2019 Dr. Yitzhak Jacobson (with Prof. Alon Angert), (currently a post-doc at GEOMAR)
- 2018-2019 Dr. Meri Eichner (with Prof. Dirk de Beer, currently a post-doc at Institute of Microbiology, Třeboň, Czech Republic)
- 2014-2019 Dr. Subhajit Basu (winner of the PBC post-doc award, currently a post-doc at MPI Bremen)
- 2012-2014 Dr. Racheli Armoza-Zvuloni (currently a researcher at Arava-Dead Sea Research Center)



INTERNATIONAL VISITORS

- 2020 Drs. Danny Ionesco and Mina Bizic, Leibniz Institute for Freshwater Ecology and Inland Fisheries, Germany (1 month, Assemble Plus)
- 2019 Prof. Ondrej Parsil and Dr. Meri Eichner, Institute of Microbiology, Třebon, Czech Republic (1 month, Assemble Plus)
- 2018, 2019 Prof. Dirk de Beer and Olivia Metcalf, Max Planck, Bremen, Germany (3 weeks each visit)
- 2017, 2018 Profs. Eric Achterberg and Martha Gledhill, GEOMAR, Germany (3 weeks each visit)
- 2019 Futing Zhang, Xiaman University, China (6 weeks)

COURSES TAUGHT AT THE HEBREW UNIVERSITY AND IUI

- Introduction to the Ecosystem of the Red Sea (at the IUI), Bachelor's
- Marine Biogeochemistry (at HUJI), Bachelor's, Master's, Doctorate
- Nutrients Biogeochemistry and Uptake (at the IUI), Master's, Doctorate
- Methods in Oceanography (at the IUI), Master's, Doctorate
- Undergraduate Seminar (writing and presentation skills, at HUJI), Bachelor's
- Introduction to Practical Oceanography (at HUJI), Bachelor's
- Ocean Biogeochemistry, (at the IUI), Master's, Doctorate
- Processes in the Red Sea (at the IUI), Bachelor's