**Curriculum Vitae-Daniel Nir Bloch**

**Personal**

**Daniel Nir Bloch (ID: 026558668**)
**Date of birth:**17.07.1986
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**Available for work starting this October**

**Education:**

**2017-Current:** Ph.D. Chemistry, Ben-Gurion University in the Negev, Israel
Advisor: Prof. Raz Jelinek. Thesis: The effect of carbon dots synthesized from small molecules on amyloids.
**Currently, I am in the final stages of research work.**
During my graduate and Ph.D. studies I gained experience in the design and execution of complex experiments.
My research experience includes working with a variety of advanced chemical and biochemical methods such as TEM, FTIR, FTIR microscope, circular dichroism, ITC, DSC, Fluorimeter (fluorescence), plate reader (fluorescence and absorption ), ESR and Zetasizer (DLS and Zeta ).

**2015- 2017**: MSc, Chemistry, Ben-Gurion University in the Negev, Israel
Advisor: Prof. Yifat Miller. Thesis: Investigating the structures of $Cu^{2+}$-α-synuclein oligomers: Insight into the aggregation mechanisms in Parkinson's diseases.
In my master's studies I gained knowledge and experience working with a variety of tools in the field of computational chemistry.

**2011 - 2015:** BSc, Chemistry, Ben-Gurion University of the Negev, Israel

**2004-2006:** Practical Electronics, ORT Hermelin College, Israel

**Work experience:**
**2018-current:** Teaching assistant, Ben-Gurion University of the Negev, introduction to Analytical Chemistry for chemistry and chemical engineering students.

**2015-current:** Teaching assistant, Ben-Gurion University of the Negev, Lab of General and Analytical Chemistry instructor.

**2014-2015:** Research Assistant in Dr. Iris Visoly-Fisher Lab, Dept. of Solar Energy and Environmental Physics, Ben-Gurion University of the Negev, Sede Boqer campus

**2006-2010:** Army Service as an electronic practical engineer in the Intelligence Corps.

**Publications:**

1. **Daniel Nir Bloch,** Shani Ben Zichri, Sofiya Kolusheva and Raz Jelinek, “Tyrosine carbon dots inhibit fibrillation and toxicity of the human islet amyloid polypeptide” ***2020 Nanoscale Advance***

2. **Daniel Nir Bloch,** Paulina Kolkowska, Isabella Tessari, Maria Camilla Baratto, Adalgisa Sinicropi, Luigi Bubacco, Stefano Mangani, Pozzi, Daniela Valensin, and Yifat Miller “Fibrils of α-Synuclein abolish the affinity of Cu2+-binding site to His50 and induce hopping of Cu2+ ions in the termini” 2019 ***Inorganic Chemistry.*** (Ranking: Q1, 4/45, IF: 4.825).

3. **Daniel Nir Bloch,** Yifat Miller “A study of molecular mechanisms of -synuclein assembly: Insight into a cross- structure in the N-termini of new -synuclein fibrils” **2017** ***ACS Omega.*** Volume 2 Pages 3363−3370 (Ranking: Q2, 81/177, IF: 2.870).

**4.** Sudipta Mondal, Maxim Varenik, **Daniel Nir Bloch**, Yoav Atsmon-Raz, Guy Jacoby, Lihi Adler-Abramovich, Linda J.W. Shimon, Roy Beck, Yifat Miller, Oren Regev and Ehud Gazit., "A minimal length rigid helical peptide motif allows rational design of modular surfactants". **2016** ***Nature Comm,*** *DOI: 10.1038/ncomms14018* (Ranking: Q1, 6/71, IF: 12.121).

**5.** Vered Wineman-Fisher, **Daniel Nir Bloch** and Yifat Miller. “Challenges in studying the structures of metal-amyloid oligomers related to Type 2 diabetes, Parkinson's disease, and Alzheimer's disease” **2016** ***Coord. Chem. Rev.*** Volumes 327–328 Pages 20–26 (Ranking: Q1, 1/45 , IF: 4.298).

**Oral Presentations:**

1. **Daniel Nir Bloch** and Raz Jelinek “Investigating the effect of carbon dots presence on amyloid aggregation” IVS-MRS 2019 Student Conference. BGU Beer Seva Israel, June 27th, 2019
2. **Daniel Nir Bloch**, Sofiya Kolusheva and Raz Jelinek “Preparation and Characterization of Lipid Coated Silica Nanoparticles” CATCH-U-DNA meeting, December 1st, Madrid, Spain

**Poster Presentations:**

1. **Daniel Nir Bloch** and Raz Jelinek “Amino acid based carbon dots influence on amyloid aggregation” The 85th annual meeting of the Israel Chemical Society, Jerusalem Israel, February 18th-19th, 2020.

2. **Daniel Nir Bloch** and Raz Jelinek “Carbon dots effect on amyloid aggregation in presence and absence of metal ions” 8th Scandinavian Conference Amyloid Diseases and Amyloid Mechanisms, Lund Sweden, 28-30 Aguste 2019

3. **Daniel Nir Bloch** and Raz Jelinek “The Effect of different carbon dots on amyloid aggregation” The 84rd annual meeting of the Israel Chemical Society, Tel Aviv Israel, February 12nd, 2019.

4. **Daniel Nir Bloch** and Raz Jelinek “The Effect of Tyrosine and Phenylalanine Based Carbon Dots on IAPP Aggregation” Nano.il.2018 , Jerusalem Israel, October 10th, 2018.

5. **Daniel Nir Bloch** and Raz Jelinek “The Effect of Tyrosine and Phenylalanine Based Carbon Dots on Amyloid Aggregation” Current Challenges in Amyloid Diseases: From Molecular Mechanisms to the Cell and Clinics, Eyn Bokek, Ded Sea Israel, September 2th-6th, 2018.

6. **Daniel Nir Bloch** and Yifat Miller “The Effect of Copper on the Self-Assembly of α-Synuclein Oligomers in Parkinson`s Disease” The 83rd annual meeting of the Israel Chemical Society, Tel Aviv Israel, February 13th, 2018.

7. **Daniel Nir Bloch** and Yifat Miller "The effect of $cu^{2+}$ on the self-assembly of α-Synuclein in Parkinson's Disease" IBS-Israeli Bioinformatics Symposium, Weizmann Institute May Rehovot Israel 15th, 2017.

8. **Daniel Nir Bloch** and Yifat Miller “Investigating the stability of α-synuclein (30-95) oligomers”. The Graduate Students’ Chemistry Symposium, BGU Beer Seva Israel, December 8th, 2016.

9. **Daniel Nir Bloch** and Yifat Miller "Insight into the self-assembly of α-synuclein oligomers in Parkinson’s disease". The Israeli Biophysical Society, BGU Beer Seva Israel,, October 27th 2016

10. **Daniel Nir Bloch** and Yifat Miller "Investigating the polymorphism in the self-assembly of α-synuclein(30-95)". IBS-Israeli Bioinformatics Symposium, Haifa Israel, May 18th, 2016.

**Awards:**

**2017**- Bio-tech scholarship for Ph.D. students, Kreitman School of Advanced Graduate Studies, BGU

**2017-** Dean Excellence in studies and research for 2017, Faculty of Natural Science, BGU.

**2016-** ADAMA award for academic achievement

**Miscellaneous:**

**2000-2004:** Establishing and activation in a new Scouts (Hatsofim) youth movement for special needs kids.

**Languages**:

Hebrew, English, Spanish