

## RESUME

December 2022

### 1. PERSONAL DETAILS

Full Name: Ofer Prinz Setter  
Identity No: 066702499  
Date and place of birth: December 11, 1984, Israel  
Marital status: Domestic Partnership  
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#### *In brief (3-min pitch also available):*

A biotechnology and food engineer, about to finish my Ph.D. studies at the Technion – Israel Institute of Technology with previous 5-year experience in the pharmaceutical industry. Searching for a postdoc position in a world-leading group to combine my expertise in the field of bio-nano interface. Would love to assist others in conquering new niches through productive research towards starting my own research group. Curious and love sharing my science with others. A great believer in soft skills.

### 2. ACADEMIC DEGREES

- 2019 – present**     *PhD in Biotechnology and Food Engineering (Direct PhD track)*  
**Technion – Israel Institute of Technology**  
The Department of Biotechnology and Food Engineering,  
[The laboratory of Prof. Ester Segal for functional nanomaterials.](#)  
Dissertation: Modified Halloysite Nanotubes for the Manipulation of Bacterial Cells
- 2017 - 2019**     *Master (during direct track PhD studies)*  
**Technion – Israel Institute of Technology**  
The Department of Biotechnology and Food Engineering,  
The laboratory of Prof. Ester Segal for functional nanomaterials.  
Dissertation: Modified Halloysite Nanotubes for the Manipulation of Bacterial Cells
- 2007 - 2011**     *B.Sc. in Biotechnology and Food Engineering – Summa cum laude (GPA 94.6).*  
**Technion – Israel Institute of Technology**

### 3. PROFESSIONAL EXPERIENCE (outside academia)

- 2011 - 2017**     *Lead Analytical R&D Project Coordinator*  
**Teva Pharmaceutical Industries LTD., Israel**  
Generic drug development including nasal sprays. (analytical method development and validation, reverse engineering: H\UPLC, SEC, rheology, FTIR, XRD, PSD by microscopy. pharmaceutical regulatory)
- 2010 - 2011**     *Analytical laboratory assistant.*  
**Tami IMI Chemical Research Center**, analytical and preparative HPLC.

#### 4. RESEARCH INTERESTS

I am fascinated with the interface between living and non-living materials at the micro and nanoscale combining biology, chemistry and material science.

#### 5. TEACHING EXPERIENCE

- 2017 - 2021**      **Teaching assistant** in the course: “packaging of food, drugs, and biological products” (graduate and undergraduate)
- 2017 - 2021**      **Teaching assistant** in the course: “fundamentals of mass transfer” (undergraduate)
- 2020 - 2022**      **Mentoring three undergraduate students** through their undergraduate thesis research, including protocol writing, good laboratory practices, and results analysis as well as assessing the written thesis.

#### 6. PUBLIC PROFESSIONAL ACTIVITIES

- 2022**              Guest editor at JoVE for the method collection “[Nanoporous Materials for Controlled Release of Active Ingredients](#)”
- 2022**              Assistance to my supervisor in reviewing the manuscript: “Development and application of cinnamaldehyde-loaded halloysite nanotubes for the conservation of stone cultural heritage” submitted to Applied Clay Science (IF 5.5)
- 2021**              Assistance to my supervisor in reviewing the manuscript: “Targeting Gut Bacteria using Inulin-Conjugated Mesoporous Silica Nanoparticles” submitted to Small (IF 15.2)
- 2019**              Assistance to my supervisor in reviewing the manuscript: “Assembling ZnO and Fe<sub>3</sub>O<sub>4</sub> nanostructures on halloysite nanotubes for anti-bacterial assessments” submitted to Applied Clay Science (IF 5.5)

#### 7. MEMBERSHIP IN PROFESSIONAL SOCIETIES

- 2021**              Member of the Materials Research Society (MRS)
- 2021**              Member of the American Chemical Society (ACS)
- 2020**              Member of the Israeli Society for Clay Research

#### 8. FELLOWSHIPS, AWARDS AND HONORS

- 2017**              Leonard and Diane Sherman interdisciplinary fellowship for Technion graduate students.
- 2019**              Zeff, Fine and Daniel scholarship
- 2020**              RBNI Scholarship for excellence in Nanoscience
- 2020 - present**      [The Azrieli foundation fellowship for graduate studies](#) (13 STEM fellows at the national level)
- 2022**              Best group presentation at the [13<sup>th</sup> HOPE meeting with Nobel Laureates](#) held by Japan Society for the Promotion of Science (JSPS). 6 participants at the national level within a total of 100 participants from the Asian-Pacific and African regions.
- 2022**              Sandor Szego Award for Excellence in Teaching – best TA faculty award for the course: “fundamentals of mass transfer”

## 9. PUBLICATIONS

### 9.1. Refereed research papers in professional journals

1. \* [“Gold Nanorod-Incorporated Halloysite Nanotubes Functionalized with Antibody for Superior Antibacterial Photothermal Treatment.”](#) **O. Prinz Setter**, I. Snoyman, G. Shalash, E. Segal (2022) *Pharmaceutics* [39<sup>th</sup> out of 279 by IF in Pharmacology & Pharmacy] 14(10), 2094.
2. \* [“Acid-etched halloysite nanotubes as superior carriers for ciprofloxacin.”](#) **O. Prinz Setter**, L. Dahan, H. Abu Hamad, E. Segal (2022) *Applied Clay Science* [77<sup>th</sup> out of 414 by citation in Materials science, Multidisciplinary] 228, 106629.
3. \* [“Antibody-functionalized halloysite nanotubes for targeting bacterial cells.”](#) **O. Prinz Setter**, A. Movsowitz, S. Goldberg, E. Segal (2021) *ACS Applied Bio Materials*, 4, 4094–4104.
4. [“Occupational exposure during handling and loading of halloysite nanotubes – A case study of counting nanofibers.”](#) A. J. Koivisto, A. B. Bluhmea, K. I. Klinga, A. S. Fonseca, E. Redant, F. Andrade, K. S. Hougaard, M. Krepker, **O. Prinz Setter**, E. Segal, A. Holländer, K. A. Jensea, U. Vogel, I. K. Koponen (2018) *NanoImpact* [45<sup>th</sup> out of 138 by citation in Nanoscience & Nanotechnology], 10 153-160.
5. [“Antimicrobial LDPE/EVOH layered films containing carvacrol fabricated by multiplication extrusion.”](#) M. Krepker, C. Zhang, N. Nitzan, **O. Prinz Setter**, N. Massad-Ivanir, A. Olah, E. Baer and E. Segal (2018) *Polymers* [19<sup>th</sup> out of 90 by IF in Polymer Science], 10 (8), 864.
6. [“Antimicrobial carvacrol-containing polypropylene films: Composition, structure and function.”](#) M. Krepker, **O. Prinz Setter**, R. Shemesh, A. Vaxman, D. Alperstein and E. Segal (2018) *Polymers* [19<sup>th</sup> out of 90 by IF in Polymer Science], 10 (1), 79.
7. [“The effect of sugar stereochemistry on protein self-Assembly: The case of  \$\beta\$ -casein micellization in different aldohexose solutions.”](#) **O. Setter** and Y. D. Livney (2015). *Physical Chemistry Chemical Physics* [9<sup>th</sup> out of 36 by IF in Physics, Atomic, Molecular & Chemical] 17, 3599-3606.

\*) Best represents my unique contribution to the field  
[Journal ranking are according to [Journal Citation Report™](#), 2021]

### 9.2. Refereed review papers in professional journals

1. [“Halloysite Nanotubes: The Nano-Bio Interface.”](#) **O. Prinz Setter** and E. Segal (2020) *Nanoscale* [70<sup>th</sup> out of 345 by IF in Materials science, Multidisciplinary], 12 (46), 23444-23460.

## 10. CONFERENCES

### 10.1. Abroad

1. [2022 MRS Spring Meeting Honolulu, HI May 8 – 13, 2022](#) – Short talk – [Small Nanoclay – Big Antibacterial Opportunities](#). **Ofer Prinz Setter**, Alva Gilboa, Lisa Dahan, Hanan Abu Hamad and E. Segal.
2. [The 13th HOPE Meeting with Nobel Laureates](#) by Japan Society for the Promotion of Science 2022 (online) on March 7-11, 2022 – Poster – Modified Halloysite Nanotubes for Manipulation of Bacterial Cells. **Ofer Prinz Setter**, Lisa Dahan, Alva Gilboa and Ester Segal.
3. [Controlled Release Society \(CRS\) 2021 Virtual Annual Meeting \(online\)](#) on July 30, 2021 – Poster with narration – Functionalized Halloysite Nanotubes for Targeting Bacterial Cell. **Ofer Prinz Setter**, Ariel Movsowitz, Lisa Dahan Bouaziz, Sarah Goldberg, and Ester Segal.

4. [American Chemical Society \(ACS\) spring 2021 \(online\)](#) on April 15, 2021 – Short talk: [Halloysite nanotubes for targeting bacterial cells](#). **Ofer Prinz Setter**, Ariel Movsowitz, Sarah Goldberg, Ester Segal
5. [10th International Colloids Conference \(online\)](#) on December 7-9, 2020 – Poster: Halloysite nanotubes for targeting bacterial cells. **Ofer Prinz Setter**, Ariel Movsowitz, Sarah Goldberg and Ester Segal.

## 10.2. Local

1. The 86th Annual Meeting of the Israel Chemical Society Tel Aviv on September 12-13, 2022 – Short talk (20 min, by Prof. Segal): Functionalized Nanoclays for Food and Agricultural Applications. **Ofer Printz-Setter**, Sandeep Sharma, Hanan Abu-Hamed, Naama Massad Iavnir, Ester Segal
2. Controlled Release Society Israeli Chapter (ICRS) & Polymer for Advanced Technologies Society (PAT) Joint Workshop Ma'alot Tarshiha on October 3-7, 2021 – Poster – Modified Halloysite nanotubes for targeting bacterial cells. **Ofer Prinz Setter**, Ariel Movsowitz, Sarah Goldberg, Lisa Dahan and Ester Segal.
3. The annual conference of the Israeli Society of Soil Science 2020 (online) on December 14-16, 2020 – Short talk (15 min): Halloysite Nanotubes for Targeting Bacterial cells (English). **Ofer Prinz Setter**.
4. ISBE 2019 Tel-Aviv on December 22, 2019 – Poster: Modified Halloysite Nanotubes for Manipulation of Cells. **Ofer Prinz Setter**, Ariel Movsowitz and Ester Segal.
5. Food Day Haifa on October 29, 2019 – Poster: Modified Halloysite Nanotubes for Manipulation of Cells. **Ofer Prinz Setter**, Ariel Movsowitz and Ester Segal.
6. Nano.IL.2018 Jerusalem on October 10-11, 2018 – Poster: Modified Halloysite Nanotubes for Manipulating Microorganisms. **Ofer Prinz Setter** and Ester Segal.
7. ISBE 2017 Tel-Aviv on December 17, 2017 – Poster: "NanoPack" – Developing Antimicrobial Nanocomposites for Active Food Packaging. Max A. Krepker, **Ofer Prinz Setter**, Rotem Shemesh, Nadav Nitzan and Ester Segal.
8. Delivery of Functionality in Complex Food Systems Haifa on September 30, 2013 – Poster: Sugar Stereochemistry Effect on Self-Assembly of an Amphiphilic Protein. **O. Setter** and Y. D. Livney.

## 11. COMMUNITY ENGAGEMENT

<b>2020 - present</b>	Volunteering as a pianist at <a href="#">a social center of the Israel Mental Health Association (ENOSH)</a>
<b>2012 - 2016</b>	Volunteering as a pianist at <a href="#">"Habayit Shel Ronit"</a> – a social center for people with special needs
<b>2018</b>	<a href="#">Alpha project</a> . Coaching high school students from peripheral towns in academic research and writing.