

# Emrah Altindis, MSc, Ph.D.

Updated August, 2023

Boston College  
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## ACADEMIC POSITIONS

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September 2018- **Assistant Professor**, Biology Department, Boston College  
February 2019- **Adjunct Faculty**, Joslin Diabetes Center & Harvard Medical School  
2017-2018 **Instructor**, Joslin Diabetes Center & Harvard Medical School

## EDUCATION

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September 2014- September 2018. **Postdoctoral Researcher** with Prof. C. Ronald Kahn  
Harvard Medical School, Joslin Diabetes Center (Boston, MA)  
August 2011–September 2014 **Postdoctoral Researcher** with Prof. John Mekalanos  
Harvard Medical School (Boston, MA)  
June 2007-May 2011 **Ph.D.**, Bologna University (Bologna, Italy) & Novartis Vaccines  
(Siena, Italy)  
September 2004- May 2007 **MSc.**, Middle East Technical University (Ankara, Turkey).  
September 2000-June 2004 **B.A.**, Ege University (Izmir, Turkey)

## GRANTS

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### Ongoing Support

**2020-23 The Mathers Foundation Research Award** (MF-2006-00926) \$300,000  
*The Role of Gut Microbes and Metabolites in Childhood Celiac Disease Pathogenesis*,  
Altindis E (PI)

**2023-2025 Beatson Foundation, Passion to Find A Cure Grants** (# 2023-003) \$275,000  
Determine the Role of Microbiota Derived Insulin Epitope Mimics in Type 1 Diabetes Onset  
Altindis E (PI)

**2023-2024 D-challenge Competition. first place award** \$30,000  
Uncovering the Role of Microbiome Derived Autoantigen Mimics in Type 1 Diabetes  
The Altindis Lab team (Dogus Dogru, Audrey Randall, Khyati Girdhar)

## Completed Support

<b>2022-23 JDRF Innovative Award</b> (1-INO-2022-1108-A-N), Microbial Insulin Mimics and Humoral Immune Response in Type 1 Diabetes onset Altindis E (PI)	\$110,000
<b>2019-22 The Mathers Foundation Research Award</b> (MF-1905-00311), <i>The Role of Microbial Insulin Mimics in Type 1 Diabetes Autoimmunity</i> Altindis E (PI)	\$300,000
<b>2018-21 NIH, NIDDK K01 Research Scientist Development Award</b> (3K01DK117967), Viral Insulin-like Peptides (VILPs) and Their Activities on Mammalian Cells Altindis E (PI)	\$445,357

## FELLOWSHIPS AND TRAINING GRANTS

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**2015-16** Mary K. Iacocca Senior Postdoctoral Fellowship, \$70,000  
(One year salary with benefits)  
Microbial Insulin Mimics and Type 1 Diabetes Pathogenesis  
Altindis E (PI)

## PUBLICATIONS

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\* Corresponding author, #BC postdocs, BC undergraduate or graduate students

### Peer-reviewed Research Articles

At Boston College

1. Girdhar K<sup>#</sup>, Dogru DY, Huang Q<sup>#</sup>, Yang Y, Chrudinova M<sup>#</sup>, Raisingani A, Oh J, Tolstikov V, Kiebish MA, Kelley K, Ludvigsson JF, Palm NW, Ludvigsson J, **Altindis E\***. Dynamics of Gut Microbiome, IgA Response and Plasma Metabolome in Development of Pediatric Celiac Disease. **Microbiome**. 2023 Jan 13;11(1):9. doi: 10.1186/s40168-022-01429-2.
2. Moreau F, Kirk NS, Zhang F, Gelfanov V, List EO, Chrudinová M<sup>#</sup>, Venugopal H, Lawrence MC, Jimenez V, Bosch F, Kopchick JJ, DiMarchi DR, **Altindis E**, Kahn CR. Interaction of a viral insulin-like peptide with the IGF-1 receptor produces a natural antagonist. **Nature Communications**. 2022 Nov 5;13(1):6700.
3. Girdhar K<sup>#</sup>, Huang Q, Chow I, Raisingani A, Brady C, Atkinson M, Kwok W. Kahn CR\*, **Altindis E\***. A Gut Microbial Peptide and Molecular Mimicry in the Pathogenesis of Type 1 Diabetes. **PNAS**. 2022 Aug 2;119(31):e2120028119
4. Girdhar K<sup>#</sup>, Soto M, Huang Q<sup>#</sup>, Orliaguet L, Cederquist C, Sundaresh B, Hu J, Figura M, Raisingani A, Canfora EE, Dirice E, Fujisaka S, Goossens GH, Blaak EE, Kulkarni RN, Kahn

CR\*, **Altindis E\***. Gut Microbiota Regulate Pancreatic Growth, Exocrine Function and Gut Hormones. **Diabetes**, 2022 Feb 25;db210382. doi: 10.2337/db21-0382.

5. Garcia-Martin R, Brasil Brandao B, **Altindis E\*** and Kahn CR\*. Tissue Differences in the Exosomal/Small Extracellular Vesicle Proteome and Their Potential as Indicators of Altered Tissue Metabolism. **Cell Reports**, 2022 Jan 18;38(3):110277.
6. Zhang F, **Altindis E**, Kahn CR, DiMarchi RD, Gelfanov V. A Viral Insulin-Like Peptide is a Natural Competitive Antagonist of the Human IGF-1 Receptor. **Mol Metab**. 2021 Aug 13;101316.
7. Chrudinová M<sup>#</sup>, Moreau F, Noh HL, Páníková T, Žáková L, Friedline R, Valenzuela F, Kim J, Jiráček J, Kahn CR, **Altindis E\***. Characterization of Viral Insulins Reveals White Adipose Tissue Specific Effects in Mice. **Mol Metab**. 2020 Nov 18;101121

before Boston College

8. **Altindis E**, Cai W, Sakaguchi M, Zhang F, Guoxiao W, Liu F, Gelfanov V, De Meyts P, DiMarchi R and Kahn CR. Viral insulin-like peptides activate human insulin and IGF-1 receptor signaling: A paradigm shift for host-microbe interactions. **PNAS**, 2018 Mar 6;115 (10):2461-2466.
9. Fujisaka S., Pacheco JA., Soto M., Kostic Aleksandar, Dreyfuss JM., Pan H., Ussar S., **Altindis E.**, Li N., Bry L., Clish CB., and Kahn CR. Diet, genetics and gut microbiome drive dynamic changes in plasma metabolites. **Cell Rep**. 2018 Mar 13;22 (11):3072-3086.
10. Fujisaka S, Ussar S, Clish C, Devkota S, Dreyfuss J, Sakaguchi M, Konishi M, Softic S, **Altindis E et al**. Antibiotic Modification of Gut Microbiota Improves Insulin Signaling Via Effects on Bile Acids Depending on Host Genetics. **J Clin Invest.**, 2016 Dec 1;126 (12):4430-4443.
11. **Altindis E**<sup>&</sup>, Dong T<sup>&</sup>, Catalano J, Mekalanos JJ. Secretome analysis of *Vibrio cholera* Type VI Secretion System reveals a new effector-immunity pair. **MBio**, 2015 Mar 10;6 (2):e00075. <sup>&</sup> equal contribution
12. **Altindis E**, Cozzi R, Di Palo B, Neccho F, Mishra PR., Fontana MR, Soriani M, Bagnoli F, Maione D, Grandi G, Liberatori S. Protectome analysis: a new selective bioinformatics tool for bacterial vaccine candidate discovery. **Mol Cell Proteomics**, 2015 Feb;14 (2):418-29.
13. **Altindis E**, Fu Y, Mekalanos JJ. Proteomic analysis of the *Vibrio cholera* outer membrane vesicles. **PNAS**, 2014 Apr 15;111 (15):E1548-56.
14. Mishra R, Mariotti P, Fiaschi L., Nosari S., Maccari S., Liberatori S, Fontana M R, Pezzicoli A, Falugi F, **Altindis E et al**. . *Staphylococcus aureus* FhuD2 is involved in the early phase of

staphylococcal dissemination and generates protective immunity in mice. **J Infect Dis**, 2012 Oct 1;206 (7):1041-9, 2012.

15. Doro F, Liberatori S, Rodríguez-Ortega MJ, Rinaudo CD, Rosini R, Mora M, Scarselli M, **Altindis E et al.** Surfome analysis as a fast track to vaccine discovery: identification of a novel protective antigen for Group B Streptococcus hypervirulent strain COH1. **Mol Cell Proteomics**, 2009 Jul; 8 (7):1728-37.
16. **Altindis E**, Tefon BE, Yildirim V, Ozcengiz E, Becher D, Hecker M, Ozcengiz G. Immunoproteomic analysis of Bordetella pertussis and identification of new immunogenic proteins. **Vaccine**, 2009 Jan 22; 27 (4):542-8.

#### **In preparation, Research Articles (will be submitted by May 2024)**

1. Chrudinova M<sup>#</sup>, Kirk NS, Chuard A, Páníková T, Žáková L, Gelfanov V, DiMarchi RD, Jiráček J, **Altindis E.\*** A Viral Insulin-like Peptide Inhibits IGF-1 Receptor Phosphorylation and Regulates IGF1R Gene Expression (under review)
2. Chrudinova M<sup>#</sup>, Dogru YD, Huang R, Reiners R, DeMeyts P, DaCosta J, **Altindis E.\*** Evolution of insulin, IGF-1, viral insulins and their cognate receptors.
3. Kelley K, Girdhar K<sup>#</sup>, Dogru YD, Ludvigsson J, **Altindis E.\*** Children Developing Celiac Disease Have a Distinct and Proinflammatory Gut Microbiota in the First Year of Life.
4. Chrudinova M<sup>#</sup>, Girdhar K<sup>#</sup>, Dogru YD, **Altindis E.\*** Grouper Iridovirus viral insulin has a unique transcriptome signature compared to insulin.
5. Girdhar K<sup>#</sup>, Pina Alejandra, Atkinson M, Ludvigsson J, Ladner J, **Altindis E.\*** Epitope-resolved profiling of the antibody response identifies unique viral infection profiles in Type 1 Diabetes and Celiac Disease Patients.
6. Chuard A<sup>#</sup>, Nesarajah K, Reiners K, Danazumi K, Zhang F, DiMarchi R, **Altindis E.\*** Grouper Iridovirus Insulin/IGF like peptide is expressed during infection and manipulates host signaling pathways.
7. Girdhar K<sup>#</sup>, Vatanen T, Dogru DY, Randall A, Oh J, Ludvigsson J, **Altindis E.\*** Dynamics of Pediatric Gut Microbiome and IgA Response in Development of Type 1 Diabetes.

#### **In preparation Invited Reviews (will be submitted by September 2024)**

1. Kelley K. et al, **Altindis E.\*** The Role of Gut Microbes in Celiac Disease Pathophysiology, invited by “Gut Microbes”
2. Girdhar K. et al. **Altindis E.\*** Environmental Factors and Gut Microbiome in Type 1 Diabetes Onset. Invited by Royal Society’s open access journal Open Biology

## Reviews, Chapters and Monographs

1. **Altindis E.** Inequitable COVID-19 vaccine distribution and the intellectual property rights prolong the pandemic. *Expert Rev Vaccines*, 2021 Dec 8. doi: 10.1080/14760584.2022.2014819.
2. Girdhar K<sup>#</sup>, Powis M, Raisingani A, Chrudinová M<sup>#</sup>, Huang R, Tran T, Sevgi K, Dogru YD, **Altindis E\***. Viruses and Metabolism: The Effects of Viral Infections and Viral Insulins on Host Metabolism. *Annu Rev Virol*. 2021 Sep 29;8(1):373-391.
3. Dedrick S, Sundaresh B, Huang Q<sup>#</sup>, Brady C, Yoo T, Cronin C, Rudnicki C, Flood M, Momeni B, Ludvigsson J, **Altindis E.\*** The Role of Gut Microbiota and Environmental Factors in Type 1 Diabetes Pathogenesis. *Front Endocrinol (Lausanne)*. 2020 Feb 26;11:78.
4. Huang Q<sup>#</sup>, Kahn C.R, **Altindis E.\*** Viral Hormones: Expanding Dimensions in Endocrinology. **Endocrinology**, 2019, Volume 160, Issue 9, September, 2165–2179.
5. **Altindis E.** Antibacterial Vaccine Research in 21st Century: From Inoculation to Genomics Approaches. **Current Topics in Medicinal Chemistry**, 2013 October v13:20
6. **Altindis E**, Izulla P. An overview of African health: this time for Africa? Building on 2010 FIFA World Cup success. **Expert Rev Anti Infect Ther**, 2010 Dec; 8(12):1325-8.
7. **Altindis E.** Vaccines for all: Institut Pasteur vaccinology course. **Expert Rev Vaccines**, 2010 Sep; 9(9):1023-6.
8. **Altindis E**, Gulce Iz S, Ozgun Ozen M, Nartop P, Deliloglu Gurhan I, Gurel A. Plant Derived Edible Vaccines and Therapeutics. **Frontiers in Clinical Drug Research-Anti-Infectives**, 2014, ISBN: 978-1-60805-855.
9. **Altindis E.** A Proteomic Approach for *Bordetella pertussis*. **Book. VDM Verlag** , 2009 ISBN-10: 3639141091

## PATENTS

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1. Vaccine adjuvants. The invention relates to the field of adjuvants and provides TLR agonists, in particular TLR2 agonists, for use as adjuvants. **Altindis E**, D'oro U, Liberatori S, Soldainin E. **2015**, WO2015162100 A1

## PRESENTATIONS

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### Invited Seminars at Boston College (since September 2018)

1. A Human Gut Commensal, *Parabacteroides distasonis* and Type 1 Diabetes Onset. Festival of Genomics & BioData, Boston Convention Center October 4-5, 2023, Boston, MA
2. The Role of Gut Microbes in the Onset of Autoimmune Diseases. Department of Immunology, **Pasteur Institute**. May 22, 2023, Paris, France. Host: Dr. Gérard Eberl
3. Relearning the insulin/IGF system from the viruses. Centre for Medicines Discovery, **Oxford University**. May 19, 2023, Oxford, UK. Host: Prof. Valentine M Macaulay

4. **Keynote Lecture: Gordon Research Seminar:** The IGF and Insulin System: From Basic Science to Clinical Translation and New Technologies. March 10-12, 2023, Ventura, CA, USA
5. Invited talk: A gut commensal, *Parabacteroides distasonis*, and Type 1 Diabetes onset. **International Society of Microbiota**, 9th World Congress on Targeting Microbiota 2022. October 20, 2022, Paris, France
6. Learning Insulin/IGF signaling from viruses: Discovery of viral insulins. April 27, 2022. **Brown University**, Providence, Department of Molecular Biology, Cell Biology, and Biochemistry. Host: Prof. Marc Tatar
7. The Discovery of Microbial Insulins and Their Potential Role in Human Disease. November 9, 2021. **University of Massachusetts, Amherst**, Molecular & Cellular Biology Program Seminar Series. Host: Can Ozden (PhD student).
8. The Discovery of Microbial Insulins and Their Potential Role in Human Disease. October 26, 2021. **Tufts University**, Cell, Molecular & Developmental Biology Department Seminar Series. Host: Prof. Karl Munger
9. Discovery of Microbial Insulin Mimics Leads to the Identification of Unique Characteristics. Institute of Biomedical Investigations, June 23, 2021, **Autonomous University of Madrid** (Spain). Host: Prof. Wolfgang Link.
10. Expanding the Dimensions in Insulin Research: Discovery of Viral Insulins. April 30, 2021. **University of Algarve** (Portugal), Biomedicine Research Centre. Host: Prof. Maria Leonor Faleiro.
11. Insulin and Viral Insulin Research. **Boğaziçi University** (Istanbul, Turkey) Science Club. May 22, 2021. 15. Molecular Biology and Genetics Meeting. Host: Boğaziçi University Science Club
12. Characterization of Microbial Insulin/IGF-1 Mimics. April 14, 2021. **Boston College** Chemistry Department. Host: Prof. Jianmin Gao
13. Discovery of Microbial Insulin Mimics. April 13, 2021. Host: **Indiana University** Biology Department Seminar Series. (\*Every year, the microbiology graduate student body nominates a guest speaker to give a talk, and I was honored to be selected by their votes. I did not know any of the students).
14. Discovery and Characterization of Microbial Insulin Mimics. March 31, 2021. **Ohio University** - Basic and Translational Seminar Series. Host: Associate Prof. Kevin Lee
15. Discovery and Characterization of Microbial Insulins. **Indiana University**, School of Medicine. Department of Microbiology and Immunology. November 12, 2020. Host: Prof. Christopher Robinson
16. Discovery of microbial insulin mimics: Do they play a role in diabetes? **North Arizona University**, Pathogen and Microbiome Institute. March 4, 2020. Host: Prof. Jason Ladner
17. Invited Speaker. Bridging Virology and Endocrinology: Viral Hormones. 14th Annual Peptide Therapeutics Symposium, Peptide Therapeutics Foundation/ October 24-25, 2019, Salk Institute, La Jolla, California

18. Insulin Goes Viral: Characterization of Microbial Insulin Mimics in Human Disease. **University of Minnesota**, Division of Rheumatic and Autoimmune Diseases. 07/24/**2019**. Host: Prof. Brian Fife
19. Viral Endocrinology: Discovery of Viral Insulins. American Society of Virology Annual Meeting. July 19-24, **2019**, Minneapolis, MN
20. Gut Microbiota Regulate Pancreatic Growth, Exocrine Function, and Gut Hormones. 79th American Diabetes Association Meeting. June 7-11, **2019**, San Francisco, CA
21. Expanding Dimensions in Diabetes Research: Discovery of Microbial Insulin mimics. Stanford University Diabetes Research Center, **Stanford University**. June 7, **2019**. Host: Prof. Katrin J. Svensson, Ph.D.
22. Microbial Insulin Mimics in Type 1 Diabetes Autoimmunity. Gordon Research Conference: IGF and Insulin System in Physiology and Disease, March 10 - 15, **2019**, Ventura, CA.
23. Expanding Dimensions in Host-Microbe Interactions: Microbial Insulin mimics Center for Infectious Diseases, University of Texas, Austin. Center for Infectious Diseases, March 8, **2019**, Austin, USA. Host: Prof. Bryan W Davies, PhD
24. Discovery of Viral Hormones and Characterization of Viral Insulins. Channing Division of Network Medicine Seminar Series, **Harvard Medical School**, January 11, **2019**, Boston, USA. Host: Prof. Yang-Yu Liu, PhD
25. **Keynote Lecture**: Viral insulin-like peptides activate insulin and IGF-I receptor signaling. 43rd Symposium on Hormones and Cell Regulation, European Society of Endocrinology (ESE). October 10, **2018**. Alsace, France.
26. Discovery of Viral insulins. **Pasteur Institute**, October 5, **2018**, Paris, France. Host: Frédéric Tangy, PhD

## PROFESSIONAL SERVICE

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### ***Institutional Service***

- 2023- Chair Boston College Radiation Safety Committee
- 2021- Chair, BC Biology Department Graduate Admissions Committee
- 2020- Member, Biology Diversity, Equity and Inclusion Committee
- 2018- Member, Academic Integrity Committee
- 2019- Member, University IACUC Committee
- 2019- Member, Graduate Admissions Committee

### ***External Grant Review***

- 2023- NIDCR Special Study Section, ad hoc member, (06/15/2023)
- 2022- NIH HAI 202210 Study Section, ad hoc member (06/16/2022)
- 2021- The Mathers Foundation, Peer Review Committee

2020- The Juvenile Diabetes Research Foundation, Peer Review Committee

2020- Czech Science Foundation, Peer Review Committee

### ***Manuscript Peer Review***

Cell Metabolism, Nature Chemical Biology, Cell Reports, mSystems, Gut Microbes, FASEB Journal, Cellular and Molecular Life Sciences

### ***Journal Editing***

Topic Editor for special issue on Vaccinology in 21st century for Current Topics in Medicinal Chemistry. Bentham Sciences, October 2013

### **Awards for Altindis Lab Members**

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#### **Aurelien Chuard, PhD**

1. *Best Oral Presentation Award*, 7th biennial conference of the North American Society for Comparative Endocrinology, May 2023
2. Travel Award, American Society of Virology, International
3. Travel Award, Ranavirus Symposium, International
4. BCPDA Conference Travel Award 2023
5. BCPDA Training Grant 2023

#### **Khyati Girdhar, PhD**

1. **Diabetes Research Connection Research Grant, PI: Girdhar K**, Immunoglobulin A (IgA) signature in the gut microbiome of T1D progressors, \$ 50,000/year, 1 year
2. **BCPDA Conference Travel Award 2023**

#### **Martina Chrudinova, PhD**

1. Travel Award, Organizer-Gordon Research Seminar and Conference 2023 (International)

#### **Kat Truelson, Graduate Student**

1. Travel Award, SACNAS, National Diversity in STEM Meeting (Portland, OR), Oct 26-28, 2023

#### **Audrey Randall, Graduate Student**

1. Keystone Symposia Future of Science Fund scholarship. Mechanisms of Microbiota-Immune Interactions-Towards the Next Decade. Oct 8 - Oct 11, 2023, in Snowbird Resort in Snowbird, UT, USA.

#### **Yena Sung, Undergraduate Student**

1. Travel Award, SACNAS, National Diversity in STEM Meeting (San Juan, Puerto Rico), Oct 27-29 2022



## Contributed talks since 2018 (Altindis Lab Members)

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### Martina Chrudinova, PhD (Postdoc in Altindis Lab)

1. American Diabetes Association 81st Scientific Sessions (ADA) (online), June 25 – June 29 2021 (Oral presentation)  
Mandarin Fish Ranavirus Viral Insulin/IGF-like peptide Inhibits Human IGF-1 Receptor (talk)
2. Characterization of Viral Insulin-like Peptides Reveals Unique White Adipose Tissue Specific Characteristics  
ENDO 2021 (online), March 20 -23 2021.
3. DZD Diabetes Research School 2020 (online), Sept 29 – Oct 12 2020

### Qian Huang, PhD (Postdoc in Altindis Lab)

4. A gut commensal, *Parabacteroides distasonis*, triggers Type 1 Diabetes autoimmunity. Boston Bacterial Meeting 2020. **July 17, 2020**

### Khyati Girdhar, PhD (Postdoc in Altindis Lab)

5. The 2022 MIT Microbiome Symposium. April **29, 2022**
6. American Diabetes Association 83rd Scientific Sessions (ADA) (San Diego), June 2` – June 26 2021 (Oral presentation).  
A Human Gut Commensal, *Parabacteroides distasonis*, Stimulates an Inflammatory Response Specific to the Pancreas but Not to the Intestines, and Induces Type 1 Diabetes

### Aurelien Chuard, PhD (Postdoc in Altindis Lab)

7. **Travel Award:** Characterizing the role of Grouper Iridovirus viral insulins in host-virus interaction. First Global Amphibian and Reptile Disease (GARD) conference-2022 (August 4-10, University of Tennessee Conference Center, Knoxville, TN)

### Contributed Talks before September 2018 (Emrah Altindis)

8. Identification of Cross-Reactive Insulin Immunogenic Epitopes from Commensal Gut Microbes. 78th American Diabetes Association Meeting, June, **2018**, Orlando, USA
9. Viral Insulin-like Peptides Activate Human Insulin and IGF-1 Receptor Signaling: A New Paradigm for Host-Microbe Interactions. January, **2018**. **Joslin Diabetes Center Seminar Series**, Boston, USA.
10. Viral Hormones and Insulins. January, **2018**. BTBC, Boston, USA.
11. Viral Insulin-Like Peptides Are New Ligands of Human Insulin and IGF-1 Receptors. June, **2017**, 77<sup>th</sup> American Diabetes Association Meeting, San Francisco, USA.
12. Fecal Proteomics Analysis Provides a Novel Window into the Effects of Diet and Gut Microbiome on Host Gut Metabolism. Cellular Mechanisms and Cell-Based Therapies of Diabetes, **2016**. Boston, USA.

13. MetaVaccinology: A new bacterial vaccine discovery tool. **2011**, 5th Vaccine and ISV Annual Global Congress, Seattle, USA.
14. Proteomics and Vaccinology: a case study for Group B Streptococcus. **2009**, 2nd International Workshop on Expression, Structure and Function of Membrane Proteins, Florence, Italy.

### Contributed posters since 2018 (Lab Members)

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#### Martina Chrudinova, PhD (Postdoc in Altindis Lab)

- **Martina Chrudinova, PhD (Postdoc in Altindis Lab, EA corresponding author).**

1. Characterization of viral insulin like peptides reveals unique white adipose tissue specific characteristics compared to human insulin. ENDO 2021 (online), March 20 -23 **2021**
2. Characterization of viral insulin like peptides reveals unique white adipose tissue specific characteristics compared to human insulin. 15th Annual Peptide Therapeutics Symposium (online), Oct 22-23 **2020**.
3. In vivo characterization of viral insulin-like peptides reveals higher potency on white adipose tissue. Joslin Diabetes Center International Symposium, Oct 24 – Oct 26 **2019**.

- **Khyati Girdhar, PhD (Postdoc in Altindis Lab, EA corresponding author).**

1. *Parabacteroides distasonis* enhances type 1 diabetes autoimmunity via molecular mimicry. Abstract No-14. Nov 3, 2021. 18th Immunology of Diabetes (IDS) Congress Program. November 1-November 4, **2021**.
2. Human Gut Commensal, *Parabacteroides Distasonis*, Enhances Type 1 Diabetes Autoimmunity via Molecular Mimicry. American Diabetes Association 81st Scientific Sessions (ADA) (online), June 25 – June 29 **2021**
3. Children Developing Celiac Disease Have a Distinct and Proinflammatory Gut Microbiota and Serum Metabolite Composition in the First 5 Years of Life. Boston Bacterial Meeting. June 11, **2021**.

### RESEARCH HIGHLIGHTS (selected)

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1. Dan Robitzski. How a Specific Gut Bacterium May Cause Type 1 Diabetes. **The Scientist**. Aug 25, 2022
2. **Ask the Expert Podcast. Pancreas and Gut Microbiome**. May 24, 2022
3. Elizabeth Svoboda. Gut feeling yields evidence of microbial involvement in autoimmunity. **Nature**, volume 595. July 2021.
4. **The Sugar Science Podcast**. Episode 43. Emrah Altindis, PhD, Assistant Professor, Boston College. December 14, 2020
5. **This Week in Virology (TWIV) Podcast**. Episode 485. March 18, 2018
6. Louis J. Cohen. Don't forget about me! Viral-host metabolic interactions in the microbiome. **Science Translational Medicine**. Vol 10, Issue 433. March 19, 2018
7. Ashley York. Viral hormones activate human insulin signaling. **Nature Reviews Microbiology**

## **COURSES**

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### ***Boston College, Chestnut Hill, MA***

1. Microbiome and Human Disease (BIOL510001, 2 credits, since Spring 2019)
2. Medical Biochemistry and Metabolism (BIOL4290, 3 credits since Spring 2020)

## **MENTORING AND ADVISING**

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### ***Postdoctoral Scholars***

1. Mahya Shariat Razavi 09/23- present
2. Aurelien Chuard, 03/21- present
3. Khyati Girdhar, 10/21- present
4. Martina Chrudinova, 07/18- 12/22
5. Qian Huang, 10/18 - 07/21
6. Michael Rak, 09/18 - 02/19

### ***PhD students***

- 1 Dogus Dogru (MSc), 02/2022-
- 2 Kristina Kelley, 05-2022-
- 3 Audrey Randall, 05/2022-
- 4 Katherine Truelson, 04/2023-

### ***Thesis Committees at Boston College***

1. Javad Akbari, Momeni Lab, Member of the Committee, PhD in progress
2. Kevin White, Williams Lab, Chair of the Committee, PhD in progress
3. Joshua Linnane, Johnson Lab, Member of the Committee, PhD in progress
4. Derek Lee, Seyfried Lab, Chair of the Committee, PhD in progress

### ***Comprehensive Exam Committees, Boston College***

1. Owen Page, Meyer Lab (May 17, 2023)
2. Courtney Stuart, Johnson Lab (May 3, 2023)
3. Justin McDuffie, Das Lab (December 15, 2022)
4. Ciara Bauwens, Gubbels Lab (May 11, 2022)
5. Vaishnavi Warriar, Momeni Lab (May 19, 2022)

6. Victoria Hogan, Johnson Lab (May 5, 2021)
7. Natalie Sandlin, Momeni Lab (May 1, 2020)
8. Suyen Espinoza Miranda, Van Opijnen Lab (May 15, 2019)

### **Undergraduate Research Students (Gateway, McNair, Montserrat and/or first generation students)**

Class of 2020: Claudia Brady

Class of 2021: David Kim, Scott Hsu, Tu Tran, Amaya Powis, Robert Reiners, Yasmine Nousari

Class of 2022: Ruixu Huang, Maximilian Figura, Kaan Sevgi, Amol Raisingani, Nathan Ji, Riley Aquilano

Class of 2023: Khadija Danazumi, Kaitlin Reiners, Typhania Zanou, Matthew Mojares, Brianna Coppinger, Yena Sung, Jaewon Oh

Class of 2024: Julianne Cutone, Genesis Soto, Alessandro Pezzella

Class of 2025: Kalaimagal Nesarajah, Clarissa Howard

**Note:** We have trained 22 undergraduate researchers in the Altindis lab since September 2018 and among them, 11 students have been women and 8 students have been BIPOC and/or first-generation low-income students. Several undergraduate students are listed (or will be listed) as co-authors in our publications because of their contributions to our research.

### **Graduate Student Rotations (6-10 weeks)**

2018-2019: Alvaro Dafonte Imedio, Bharathi Sundaresh

2019-2020: Matthew Crum, M. Javad Akbari

2020-2021: Jelena Momirov, Minqi Shen, Esteban Marte, Irem Ozkan, Maira Ahmed, Casey Roberts, Tian Wang

2021-2022: Oyku Tosun, Dogus Dogru, Efe Cinar Sumer, Kristina Kelley, Audrey Randall

2022-2023: Katherine Truelson

### **AWARDS**

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1. Travel Award. Imaging the Pancreas in Diabetes, and Benign and Malignant Exocrine Pancreatic Disease. NIH, NIDDK. Jan. 13-14, 2020. Bethesda, MD.
  2. Travel Award. 54th EASD Annual Meeting 2018, Berlin, Germany.
  3. ADA Best Presidential Abstract, Travel Award. 77<sup>th</sup> American Diabetes Association Scientific Sessions, , June 2018, Orlando, FL (co-first authored with Bruna B. Brandao)
  4. Best Paper-2018 (May 2017-May 2018). Marble Dinner, Joslin Diabetes Center, May 2018, Boston, MA (selected based on the votes of all Joslin researchers)

5. Joslin Diabetes Center, Best Questions at Joslin Seminars, January 2018, Boston, MA
6. Travel Award. Joslin Fellows Council, , 2017, Boston, MA.
7. Registration/ Accommodation Award German Diabetes School and Insulin Receptor Conference 2017, 2017, Nice, France.
8. Travel Award. International Congress of Immunogenomics and Immunomics Conference, 2006. Budapest, Hungary.

## **FACULTY DEVELOPMENT ACTIVITIES ATTENDED**

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1. CIMER Mentoring Workshop. March 7, 2023 (full day)
2. NIH Virtual Seminar on Program Funding and Grants Administration. November 11-21, 2021.
3. The Lowell Humanities Series. Boston College (since 2019).
4. How to Write a Winning NSF CAREER Proposal workshop. Virtual. Organized by University of Massachusetts, Amherst. May 2021
5. Successful Grant Writing Strategies. Virtual. Organized by Harvard Medical School. Fall 2019.
6. Scientific Writing Retreat. Cold Spring Harbor Laboratory. November 13 - 17, 2019
7. NIDDK K-Awardees' Workshop 2019, Bethesda, MD, April 11 - 12, 2019
8. Leadership Strategies for the Researcher (Harvard Catalyst Education Program, October 18/19, 2018)
9. Teaching 101: Bringing Effective Teaching Practices to your Classroom (Harvard Medical School, GENETIC 302QC), February-May 2018
10. Leadership and Management Skills Training. Harvard Medical School, Office for Postdoctoral Fellows, 2017, 8 hours. Boston, MA, USA
11. Strategies and Techniques for Analyzing Microbial Population Structure, Marine Biological Laboratory, August 5 - August 15, 2015 (72 hours), Woods Hole, MA, USA
12. Vaccinology Course, Institute Pasteur, 2010, 5 weeks (170 hours), Paris, France

## **OUTREACH**

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- 2023- FACES FACES Summit: Racism in the Workplace Professor Panel. 04/22/2023
- 2022- Joslin Diabetes Center Alumni Career Panel, October 7, 2022
- 2021- Guest scientist: Bioethics Society Lunch with a Professor, Boston College
- 2021- Boston Bacterial Meeting 2021 – Breakout Session on Diversity in STEM, Chair.
- 2020- McNair Exploratory Program, mentor for first year underrepresented students

2019- "A Symposium on Careers and Collaboration in Science", Boston Postdoctoral Association Speaker at the "New hires" panel.

2019- Mentoring and training four Gateway students in my laboratory

2019- Mentoring and training two Montserrat students in my laboratory

2021- Mentoring and training two McNair scholars in my laboratory

## PROFESSIONAL MEMBERSHIP

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2018- American Diabetes Association

2019-21 American Society of Virology

2019-20 American Endocrine Society

2018-19 European Association for the Study of Diabetes

## MEDIA CONTRIBUTIONS (selected)

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1. The Coronavirus Meets Authoritarianism in Turkey, **New Yorker**, April 3, 2020 (full page interview)
2. Turkey Struggles During Pandemic To Protect Public Health, Economy. **NPR**. January 26, 2021 (interview)
3. Turkeys Coronavirus Lockdown. **BCC News**. April 6, 2020 (interview)
4. Erdogan under pressure as Turkey's coronavirus toll mounts. **Financial Times**. March 31, 2020 (interview)

## BOOK

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1. Ozyurek E, **Altindis E**, Ozpinar G. Authoritarianism and Resistance in Turkey: Conversations on Democratic and Social Challenges 1st ed. 2019. **Springer**.