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Mr. Akash Kothari

Correspondence language: English

Date of Birth: 8/27

Canadian Residency Status: Canadian Citizen

Country of Citizenship: Canada

Contact Information

The primary information is denoted by (*)

Address

Mailing

The Hospital for Sick Children
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Primary Affiliation (*)

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Community https://www.researchgate.net/profile/Akash_Kothari5

Mr. Akash Kothari

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes

Degrees

- 2021/9 (2023/6) Master's Thesis, Master of Science, Institute of Medical Science, University of Toronto
 Degree Status: In Progress
 Thesis Title: TBD
 Supervisors: Eiwegger, Thomas, 2021/9 - 2023/6; Moraes, Theo, 2021/9 - 2023/6
- 2017/9 (2021/6) Bachelor's Honours, Honours Bachelor of Science, Immunology and Nutritional Sciences, University of Toronto
 Degree Status: All But Degree
 Thesis Title: (1) The effect of Holder pasteurization and High Hydrostatic Pressure Processing on the antiviral properties of human milk, (2) Investigation of peanut allergen-specific response induced by trans-placental immune complexes (Double Thesis)
 Supervisors: Eiwegger, Thomas, 2020/9 - 2021/4; O'Connor, Deborah, 2020/9 - 2021/4; Csizmadia, Imre, 2018/9 - 2019/4
 Research Disciplines: Immunology, Nutrition, Chemistry

Credentials

- 2021/4 Laboratory Biosafety (EHS601), University of Toronto
- 2021/4 WHMIS and Lab Safety Training (EHS101), University of Toronto
- 2021/1 Coursera Courses, University of Toronto
 Accredited online courses by the University of Toronto offered through Coursera.
 Completed Learn to Program: The Fundamentals and Bioinformatic Methods I
- 2020/7 TCPS 2: CORE, The Hospital for Sick Children
 Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics
- 2020/5 Collaborative Institutional Training Initiative, The Hospital for Sick Children
 Accredited CITI Program courses for Canada GCP, Health Canada Division 5, Canada RCR, Canada Biomedical Course, and TDG/IATA Canada
- 2015/9 National Lifeguard Service, LifeSaving Society Canada
 Worked as a lifeguard and swim instructor as a member of Lifesaving Society and Red Cross at MC Aquatics. License: KOA98T

2015/1	CSIA Level One Ski Instructor, Canadian Ski Instructors' Alliance Full CSIA member, taught students how to ski for Conservation Halton, at the Glen Eden Ski and Snowboard Centre. License: 228063
2018/11 - 2021/11	CPR and AED Level HCP, Canadian Red Cross Trained in CPR and AED at the HCP Level License: 100818083
2018/11 - 2021/11	Emergency First Responder, Canadian Red Cross Level of training required to be a supervisor on campus at the University of Toronto License: 100818083

Recognitions

2021/5 - 2021/8	Lunenfeld Summer Studentship - 2,000 (Canadian dollar) The Hospital for Sick Children Distinction A competitive award provided to up to 35 SickKids Research Institute scientists to support summer student salaries.
2021/3	Ontario Remembrance Scholarship - 10,000 (Canadian dollar) University of Toronto Distinction One of 7 university-wide scholarships denoting academic excellence and leadership skills, demonstrated through community involvement and extra-curricular activities.
2020/9	The Regents In-Course Scholarship - 1,000 (Canadian dollar) Victoria University, Toronto Distinction Scholarship for outstanding performance in third year courses (minimum 3.5 GPA).
2020/5 - 2020/8	Undergraduate Research Opportunity Program Award (declined) - 4,000 (Canadian dollar) University of Toronto Distinction Award for summer project in Eiwegger Lab. Declined to accept Milne Research Award.
2020/5 - 2020/8	Dr Lorus J and Dr Margery J Milne Research Award - 5,000 (Canadian dollar) Victoria University, Toronto Distinction Summer research award for bioinformatics work in B-cell immunology in Eiwegger Lab.
2020/5 - 2021/8	Walter and Mary Tuohy Award at the Faculty of Arts & Science (deferred) - 9,600 (Canadian dollar) University of Toronto Distinction Funding for international fieldwork at the Swiss Institute of Allergy and Asthma Research with Cezmi Akdis, Top 1% Highly Cited Researcher, h-index 126. (deferred COVID-19).
2020/5	Sabrina Shannon Memorial Award - 1,000 (Canadian dollar) Food Allergy Canada Distinction Awarded by national non-profit for raising awareness and educating others about life-threatening allergies through FOODIAC and research contributions.
2019/9	The McCutcheon Award - 1,000 (Canadian dollar) Victoria University, Toronto Distinction Scholarship for outstanding performance in second year courses (minimum 3.5 GPA).

2019/3	<p>Summer Abroad Scholarship (declined) - 2,000 (Canadian dollar)</p> <p>University of Toronto</p> <p>Distinction</p> <p>Travel grant to pursue research project abroad in Hungary via CHM396 course (declined). Awarded among only 3 other scholarships.</p>
2017/9 - 2021/4	<p>Roberts Scholarship - 20,000 (Canadian dollar)</p> <p>University of Toronto</p> <p>Distinction</p> <p>Renewable \$5000 scholarship awarded to an outstanding student entering with over 95%, maintaining academic excellence throughout their undergraduate program.</p>
2017/9 - 2020/4	<p>Dean's List Scholar</p> <p>University of Toronto</p> <p>Distinction</p> <p>Special recognition noted each year on transcript for those with a cGPA of 3.5, approximately the top 10% of students in the university.</p>

User Profile

Research Specialization Keywords: Food Allergies, Allergen Immunotherapy, Breastmilk, Immunological Tolerance

Disciplines Trained In: Immunology, Nutrition

Research Disciplines: Immunology, Nutrition, Chemistry

Areas of Research: Allergies, Breast Feeding and Infant Nutrition

Fields of Application: Pathogenesis and Treatment of Diseases

Employment

2021/5 - 2021/8	<p>Lunenfeld Summer Student in O'Connor Lab</p> <p>The Hospital for Sick Children</p> <p>Full-time</p> <p>Using plaque reduction assays to examine anti-CMV and anti-HAV activity before and after pasteurization of human donor milk. Experience with: HFF and FRhK4 cell lines, HPLC, mid-IR spectroscopy, qPCR</p>
2020/5 - 2020/7	<p>Research Summer Student in Eiwegger Lab</p> <p>The Hospital for Sick Children</p> <p>Full-time</p> <p>A work-from-home (due to COVID-19) computational research project in B-cell immunology using bioinformatics to analyze epitope mapping of peanut allergens. Experience with: Prism, R</p>
2019/5 - 2019/8	<p>Research Summer Student in Eiwegger Lab</p> <p>The Hospital for Sick Children</p> <p>Full-time</p> <p>Accepted into the most competitive summer research program in Canada (SSuRe) to work on a human precision cut intestinal slice model investigating antibody driven events of allergy and tolerance development in situ. Experience with: histamine ELISA kits, viability assays, metabolic assays, microtome tissue slicing, making buffers and gels, Prism and ImageJ softwares</p>

2018/6 - 2019/5 Research Summer Student in Brooks Lab
 Princess Margaret Cancer Centre
 Part-time
 Worked with post-doctoral fellow on determining how chronic viral pathogenesis and microbial modifications affected immunity in the gastrointestinal tract, through a LCMV murine model. Experience with: Plaque Forming Unit Assays, CyTOF, Antibody Staining, Virus Purification, Vero cell line

Affiliations

The primary affiliation is denoted by (*)

(*) 2021/9 - 2023/6 Master's Student, University of Toronto

Courses Taught

2020/05/04 - Teaching Assistant, Immunology, University of Toronto
 2020/06/22 Course Title: Fundamental Immunology
 Course Code: IMM340
 Course Level: Undergraduate
 Academic Session: Summer
 Number of Students: 150

Community and Volunteer Activities

2018/9 President and Founder of FOODIAC, University of Toronto
 Food Intolerance and Allergy Club. Provide opportunities for students with dietary restrictions to share experiences and tips, promote more dietary friendly options on campus, and run educational seminars. Recognized through Sabrina Shannon Award.

2019/9 - 2021/4 Research Opportunity Program Mentor, University of Toronto
 Peer mentor/advisor to four students enrolled in the research opportunity program for their independent projects under Professor Al-Amin Dhirani.

2019/9 - 2021/4 IMMSA Mentor and 4th Year Representative, University of Toronto
 Mentor undergraduate students who are interested in immunology and run events including a scientific conference, as part of the the Immunology Students' Association.

2019/9 - 2020/9 Research Volunteer in Eiwegger Lab, The Hospital for Sick Children
 Conducting analysis on patient samples from multiple oral immunotherapy trials in the Immunology and Allergy section of the Hospital for Sick Children. Experience with: basophil activation tests, chip-based nitrocellulose immunoassay (Allergen Explorer)

2017/9 - 2019/9 Competitive Swimming Coach, Special Olympics Canada
 Help coach vulnerable people with disabilities in their participation of competitive swimming at the national and international level.

2018/4 - 2019/5 Indian Students' Society Vice President, University of Toronto
 Vice President of the largest club on campus, organizing events including a 300 person, \$7500 formal dinner gala.

2018/5 - 2018/9	Healthcare Volunteer, Princess Margaret Cancer Centre Helped run information desk to answer inquiries and direct visitors to various facilities/clinics within the hospital network. Assisted nurses and patient flow coordinators in various clinics including genitourinary, gastrointestinal, sarcoma, prostate, and hematology by checking in, directing, and taking measurements of patients.
2018/5 - 2018/8	Research Volunteer in Sugita Lab, Toronto Western Hospital Conducted research in neurotransmitter exocytosis through DNA transformation, ligation, purification, plasmid preparation, PCR, gel electrophoresis, and gel extraction through a <i>C. elegans</i> model.

Other Memberships

2018/9	UTEFR Member, University of Toronto Volunteer Emergency First Responder for first-aid events on campus, providing pre-hospital care as needed.
2020/6 - 2034/8	Junior Member, European Academy of Allergy and Clinical Immunology Membership Number: 23360
2018/9 - 2020/4	Student Representative, Victoria University, Toronto Student Representative on the Victoria College Council, the highest governing body dealing with academics at Victoria University, within the University of Toronto

Presentations

- (2021). Establishing protocols for multiplex allergen component testing with different isotypes as markers of therapy response to oral immunotherapy. Ontario-Quebec Undergraduate Immunology Conference (OQUIC), Toronto, Canada
Main Audience: Researcher, Keynote?: No, Competitive?: Yes
Description / Contribution Value: Oral presentation (2020 Conference moved due to COVID-19).
- (2020). Ketene and Ammonia forming Acetamide in the Interstellar Medium. ASSU Undergraduate Research Conference, Toronto, Canada
Main Audience: Knowledge User, Keynote?: No, Competitive?: Yes
Description / Contribution Value: Participated in poster presentation of accepted journal article.
- (2020). Basophil Activation Test Adds to Clinical Decision Making in Childhood. Immunology Summer Student Program, Toronto, Canada
Main Audience: Researcher, Keynote?: No, Competitive?: No
Description / Contribution Value: Oral presentation of culminated summer research.
- (2019). Inducing an Acute Phase Allergic Response through a Precision Cut Intestinal Slice Model. Immunology Summer Student Program, Toronto, Canada
Main Audience: Researcher, Keynote?: No, Competitive?: No
Description / Contribution Value: Oral presentation of culminated summer research.
- (2019). Ketene and Ammonia forming Acetamide in the Interstellar Medium. Undergraduate Research Forum, Toronto, Canada
Main Audience: Knowledge User
Invited?: Yes, Keynote?: No, Competitive?: No
Description / Contribution Value: Participated in poster presentation of accepted journal article.

6. (2019). A network of immune and microbial modifications underlies viral persistence in the gastrointestinal tract. Ontario-Quebec Undergraduate Immunology Conference (OQUIC), Toronto, Canada
Main Audience: Researcher, Keynote?: No, Competitive?: Yes
Description / Contribution Value: Youngest competitor in Canada's largest undergraduate immunology conference. Oral presentation of accepted journal article.
7. (2019). Ketene and Ammonia forming Acetamide in the Interstellar Medium. Victoria College Research Day, Toronto, Canada
Main Audience: Knowledge User, Keynote?: No, Competitive?: Yes
Description / Contribution Value: Competed and presented poster presentation of accepted journal article.

Publications

Journal Articles

1. Alessandra Vultaggio, Ioana Agache, Cezmi A. Akdis, Mübeccel Akdis, Sevim Bavbek, Apostolos Bossios, Jean Bousquet, Onur Boyman, Adam M. Chaker, Susan Chan, Alexia Chatzipetrou, Wojciech Feleszko, Davide Firinu, Marek Jutel, Paula Kauppi, Ludger Klimek, Antonios Kolios, Akash Kothari, Marek L. Kowalski, Andrea Matucci, Oscar Palomares, Oliver Pfaar, Barbara Rogala, Eva Untersmayr, Thomas Eiwegger. (2020). **Considerations on biologicals for patients with allergic disease in times of the COVID-19 pandemic: an EAACI Statement**. Allergy. 75: 2764–2774.
<http://dx.doi.org/10.1111/all.14407>
Co-Author
In Press, Wiley, United States
Refereed?: Yes, Open Access?: No
Number of Contributors: 25
Description of Contribution Role: Conducted literature search on the prevalence of atopic disease in COVID-19 patients and any treatment with related biologicals. Generated tables 1 and 2 and assisted in writing and revising the manuscript.
2. Akash Kothari, Arielle Locke, Thomas Eiwegger. (2020). **Emollients for the prevention of atopic dermatitis**. Allergy.
<http://dx.doi.org/10.1111/all.14650>
First Listed Author
Accepted, Wiley, United States
Refereed?: Yes, Open Access?: No, Synthesis?: No
Number of Contributors: 3
Description of Contribution Role: Primarily wrote manuscript, with other authors critically revising.

3. Ludger Klimek, Oliver Pfaar, Margitta Worm, Thomas Eiwegger, Jan Hagemann, Markus Ollert, Eva Untersmayr, Karin Hoffmann-Sommergruber, Alessandra Vultaggio, Ioana Agache, Sevim Bavbek, Apostolos Bossios, Onur Boyman, Susan Chan, Alexia Chatzipetrou, Christian Vogelberg, Davide Firinu, Paula Kauppi, Antonios Kolios, Akash Kothari, Andrea Matucci, Oscar Palomares, Zsolt Szépfalusi, Wolfgang Pohl, Wolfram Hötzenecker, Alexander Rosenkranz, Karl-Christian Bergmann, Thomas Bieber, Roland Buhl, Jeroen Buters, Ulf Darsow, Thomas Keil, Jörg Kleine-Tebbe, Susanne Lau, Marcus Maurer, Hans Merk, Ralph Mösges, Joachim Saloga, Petra Staubach et al. (2020). **Anwendung von Biologika bei allergischen und Typ-2-entzündlichen Erkrankungen in der aktuellen COVID-19-Pandemie: ein positionspapier von AeDA, DGAKI, GPA, ÖGAI, LGAI, ÖGP, ARIA und EAACI.** Allergologie. 43(7): 255-271.
<http://dx.doi.org/10.5414/ALX02166>
 Co-Author
 Published, Dustri-Verlag, Germany
 Refereed?: Yes
 Number of Contributors: 75
 Description of Contribution Role: Conducted literature search on the prevalence of atopic disease in COVID-19 patients and any treatment with related biologicals. Original article adapted to Germany, Austria, Switzerland, and Luxembourg, translated to German.
4. Lisa Hung, Alper Celik, Xiaojun Yin, Gary Yu, Alireza Berenji, Akash Kothari, Helena Obernolte, Katrine Lindholm Bøgh, Gino Somers, Iram Siddiqui, Martin Grealish, Fayez A. Quereshy, Katherina Sewald, Priscilla Chiu, Thomas Eiwegger. (2020). **Precision cut intestinal slices, a novel model of acute food allergic reactions.** Journal of Allergy and Clinical Immunology.
 Co-Author
 Submitted, Mosby, United States
 Refereed?: Yes, Open Access?: No, Synthesis?: No
 Number of Contributors: 15
 Description of Contribution Role: Generated experimental results through precision cut intestinal slice samples, metabolic and viability assays, and assisted in writing and critically revising the manuscript.
5. Ludger Klimek, Oliver Pfaar, Margitta Worm, Thomas Eiwegger, Jan Hagemann, Markus Ollert, Eva Untersmayr, Karin Hoffmann-Sommergruber, Alessandra Vultaggio, Ioana Agache, Sevim Bavbek, Apostolos Bossios, Onur Boyman, Susan Chan, Alexia Chatzipetrou, Christian Vogelberg, Davide Firinu, Paula Kauppi, Antonios Kolios, Akash Kothari, Andrea Matucci, Oscar Palomares, Zsolt Szépfalusi, Wolfgang Pohl, Wolfram Hötzenecker, Alexander Rosenkranz, Karl-Christian Bergmann, Thomas Bieber, Roland Buhl, Jeroen Buters, Ulf Darsow, Thomas Keil, Jörg Kleine-Tebbe, Susanne Lau, Marcus Maurer, Hans Merk, Ralph Mösges, Joachim Saloga, Petra Staubach et al. (2020). **Use of biologicals in allergic and type-2 inflammatory diseases during the current COVID-19 pandemic: Position paper of AeDA, DGAKI, GPA, ÖGAI, LGAI, ÖGP in co-operation with the German, Austrian, and Swiss ARIA groups, and EAACI.** Allergologie Select. (4): 53-68.
<http://dx.doi.org/10.5414/ALX02166E>
 Co-Author
 Published, Dustri-Verlag, Germany
 Refereed?: Yes
 Number of Contributors: 75
 Description of Contribution Role: Conducted literature search on the prevalence of atopic disease in COVID-19 patients and any treatment with related biologicals. Original article adapted to Germany, Austria, Switzerland, and Luxembourg.

6. Milena Sokolowska, Zuzanna Lukasik, Ioana Agache, Cezmi A. Akdis, Deniz Akdis, Mübeccel Akdis, Weronika Barcik, Helen Brough, Thomas Eiwegger, Andrzej Eliasiewicz, Stefanie Eyerich, Wojciech Feleszko, Cristina Gomez Casado, Karin Hoffmann-Sommergruber, Jozef Janda, Rodrigo Jiménez-Saiz, Marek Jutel, Edward Knol, Inge Kortekaas Krohn, Akash Kothari, Joanna Makowska, Marcin Moniuszko, Hideaki Morita, Liam O'Mahony, Kari Nadeau, Cevdet Ozdemir, Isabella Pali-Schöll, Oscar Palomares, Francesco Papaleo, Mary Prunicki, Carsten Schmidt-Weber, Anna Sediva, Jürgen Schwarze, Mohamed Shamji, Gerdien Tramper-Stranders, Willem van de Veen, Eva Untersmayr. (2020). **Immunology of COVID-19: mechanisms, clinical outcome, diagnostics and perspectives – a report of the European Academy of Allergy and Clinical Immunology (EAACI)**. Allergy. 75: 2445–2476.
<http://dx.doi.org/10.1111/all.14462>
 Co-Author
 Published, Wiley, United States
 Refereed?: Yes, Open Access?: No
 Number of Contributors: 37
 Description of Contribution Role: Conducted literature search on immunological treatment options of COVID-19 via biologicals, small molecules, and passive immunizations. Generated tables 1 and 2 and assisted in writing and revising the manuscript.

7. Ludger Klimek, Oliver Pfaar, Margitta Worm, Thomas Eiwegger, Jan Hagemann, Markus Ollert, Eva Untersmayr, Karin Hoffmann-Sommergruber, Alessandra Vultaggio, Ioana Agache, Sevim Bavbek, Apostolos Bossios, Onur Boyman, Susan Chan, Alexia Chatzipetrou, Christian Vogelberg, Davide Firinu, Paula Kauppi, Antonios Kolios, Akash Kothari, Andrea Matucci, Oscar Palomares, Zsolt Szépfalusi, Wolfgang Pohl, Wolfram Hötzenecker, Alexander Rosenkranz, Karl-Christian Bergmann, Thomas Bieber, Roland Buhl, Jeroen Buters, Ulf Darsow, Thomas Keil, Jörg Kleine-Tebbe, Susanne Lau, Marcus Maurer, Hans Merk, Ralph Mösges, Joachim Saloga, Petra Staubach et al. (2020). **Anwendung von Biologika bei allergischen und Typ-2-entzündlichen Erkrankungen in der Covid-19-Pandemie: Positionspapier des AeDA, DGAKI, GPA, ÖGAI, LGAI, ÖGP in Kooperation mit der deutschen, österreichischen, schweizerischen ARIA-Gruppe und EAACI**. Allergo Journal. 29: 14-27.
<http://dx.doi.org/10.1007/s15007-020-2553-y>
 Co-Author
 Published, Springer Medizin, Germany
 Refereed?: Yes, Open Access?: No
 Number of Contributors: 75
 Description of Contribution Role: Conducted literature search on the prevalence of atopic disease in COVID-19 patients and any treatment with related biologicals. Assisted in writing and revising the manuscript, adapted for German.

8. Akash Kothari, Linglan Zhu, Jon Babi, Anita Rágyanszki, Natalie Galant, Imre Csizmadia. (2020). **Ketene and ammonia forming acetamide in the interstellar medium**. Journal of Undergraduate Life Sciences. 14(1)
<http://dx.doi.org/10.33137/juls.v14i1.35210>
 First Listed Author
 Published, Journal of Undergraduate Life Sciences, Canada
 Refereed?: Yes, Open Access?: Yes, Synthesis?: No
 Number of Contributors: 6
 Description of Contribution Role: Conducted the literature search required, wrote the manuscript, presented at three conferences. Other authors kindly helped with calculations and reviewing the initial drafts.

9. Linglan Zhu*, Akash Kothari*, Jon Babi, Natalie J Galant, Anita Rágyanszki, Imre G. Csizmadia. (2020). **Quantum chemical study of the formation of urea in interstellar medium**. Journal of Undergraduate Life Sciences. 14(1)
<http://dx.doi.org/10.33137/juls.v14i1.35211>
 First Listed Author
 Published, Journal of Undergraduate Life Sciences, Canada
 Refereed?: Yes, Open Access?: Yes, Synthesis?: No
 Number of Contributors: 6
 Description of Contribution Role: Co-wrote manuscript and performed experimental calculations
10. Akash Kothari*, Linglan Zhu*, Jon Babi, Natalie J. Galant, Imre G. Csizmadia, Anita Rágyanszki. (2020). **Formation of pre-biological molecules in the interstellar medium**. Canadian Journal of Chemistry.
 First Listed Author
 Submitted, Canadian Science Publishing, Canada
 Refereed?: Yes, Open Access?: No, Synthesis?: No
 Number of Contributors: 6
 Description of Contribution Role: Co-wrote manuscript and performed experimental calculations.
11. Bethany L. Macleod, Heidi J. Elsaesser, Laura M. Snell, Russell J. Dickson, Mengdi Guo, Kebria Hezaveh, Wenxi Xu, Akash Kothari, Tracy L. McGaha, Cynthia J. Guidos, David G. Brooks. (2020). **A network of immune and microbial modifications underlies viral persistence in the gastrointestinal tract**. Journal of Experimental Medicine. 217(12)
<http://dx.doi.org/10.1084/jem.20191473>
 Co-Author
 Published, Rockefeller University Press, United States
 Refereed?: Yes, Open Access?: No, Synthesis?: No
 Number of Contributors: 11
 Description of Contribution Role: Generated experimental results through plaque forming unit assays, virus purification, and other procedures, presented at a conference, and was a part of the review and editorial process of the manuscript before submission.
12. Lucy Duan, Jennifer A. Hoang, Akash Kothari, Thomas Eiwegger, Peter Vadas. (2020). **Shellfish allergy is a risk factor for cricket anaphylaxis**. Journal of Allergy and Clinical Immunology: In Practice. 8(7): 2396-2398.
<http://dx.doi.org/10.1016/j.jaip.2020.02.039>
 Co-Author
 Published, Elsevier, United States
 Refereed?: Yes, Open Access?: No, Synthesis?: No
 Number of Contributors: 5
 Description of Contribution Role: Generated experimental results using immunoassays from patient sample in case study and assisted in writing and revising the manuscript.