

BIONIC

NEWSLETTER

A **BIO**logic drug safety and effectiveness inter**National** pharmacoepidemiologic **IC** study in pregnant women with autoimmune disorders or asthma and their children (BIONIC).



Newsflash

January Patient Partner Roundtable Insights

In two roundtable discussions, patient partners managing autoimmune disorders (AD) or asthma in pregnancy shared **key challenges**:



- **Medication uncertainty:** Conflicting medical advice, fragmented care, medication changes.
- **Emotional toll:** Anxiety, guilt, and stress over medication safety and child health.
- **Postpartum gaps:** Limited postpartum support for maternal health and mental well-being; focus mainly on the baby.
- **Long-term concerns:** Heritability, prevention in children, and lack of research on child outcomes.

Stay tuned for our next PP meeting in late Spring!

BIONIC OBJECTIVES

In women with AD or asthma, who continue versus discontinue biologic use in pregnancy, compare the risks of:

- 1) Maternal complications in, and worsening of disease during, pregnancy.
- 2) Complications in their infants and children.

We submitted several new grant applications inspired by and co-developed with our patient partners (PPs)!

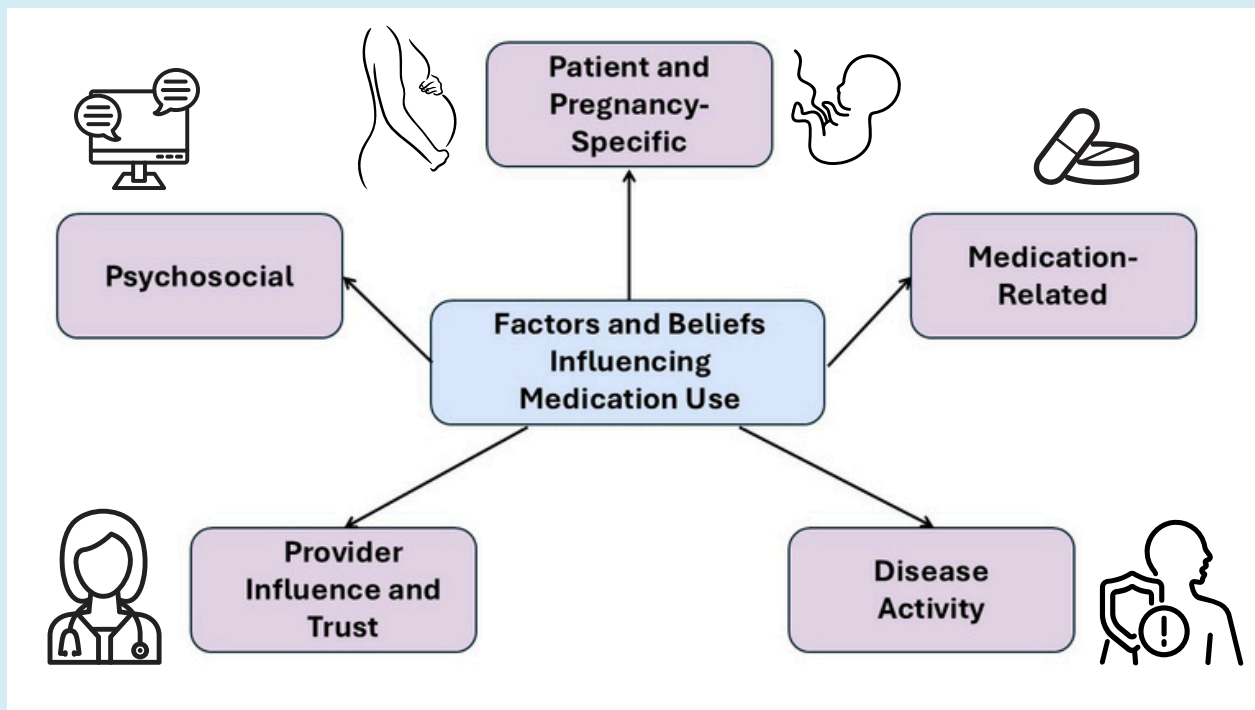
- **BIONIC** - submitted to National Institutes of Health (NIH)
- **PROMOTE:** Prenatal RSV vaccination for asthma prevention.
- **Happy Mother - Happy Baby:** Maternal mental health support
- **Asthma in Pregnancy:** Patient-centered management strategies
- **PREVENT:** Early education for preeclampsia prevention <- **Funded :)**



RESEARCH STUDY FINDINGS

Factors Influencing Medication Use in Women with Autoimmune Disorders: A Systematic Review

Olivia Novosel, medical student in Dr. Grandi's lab, recently conducted a systemic review to examine what factors and beliefs are influencing medication continuation and discontinuation among women with AD who are pregnant or trying to conceive, and the results are in!



- **Patient and pregnancy-specific:** Perceived safety & necessity of medication, fetal & maternal health concerns, risk-benefit trade-offs, fertility considerations, patient-specific disease knowledge, previous pregnancy experience
- **Psychosocial:** Patient networks & social supports, online communities & resources
- **Provider influence and trust:** Physician recommendation, distrust stemming from conflicting advice, preconception counseling
- **Disease activity:** Improvement or exacerbation, avoidance of flare
- **Medication-related:** Type of medication, preference for natural or non-medication remedies, preference for rescue over prophylactic treatment

Key Findings

Continuation of medications: Primarily influenced by trust in healthcare providers and patient knowledge about disease management.

Discontinuation of medications: Primarily driven by concerns about fetal harm and inconsistent medical advice.

Meet Dr. Sonia Grandi

BIONIC Researcher Spotlight



Access Website:
IMPOWER Lab

Dr. Sonia Grandi, PhD, is a Scientist at The Hospital for Sick Children (SickKids) Research Institute and an Assistant Professor at the University of Toronto in the Division of Epidemiology at the Dalla Lana School of Public Health. As a perinatal epidemiologist, her research focuses on improving the health of mothers and children throughout the life course. Her work has contributed to understanding the role of adverse pregnancy outcomes for long-term maternal and child health, identifying effective strategies for the early identification and management of high-risk individuals, and improving the evidence base to inform medication use in pregnancy among individuals with chronic conditions.

Dr. Grandi's work is driven by a passion for improving maternal and child health. She uses large population-based health databases to study real-world health outcomes, helping doctors and policymakers make better decisions about pregnancy care. Her research has shed light on the link between pregnancy complications, such as hypertensive disorders of pregnancy, and future heart disease in mothers. She has also investigated the safety and effectiveness of medications taken during pregnancy, including treatments for autoimmune disorders and asthma.

Dr. Grandi has published over 50 scientific papers on maternal health, and her findings have influenced clinical guidelines for heart disease prevention in women. She has also received prestigious awards, including recognition from the American Heart Association for her work on pregnancy-related heart risks and the 2024 Rising Star award from the Society for Pediatric and Perinatal Epidemiology.

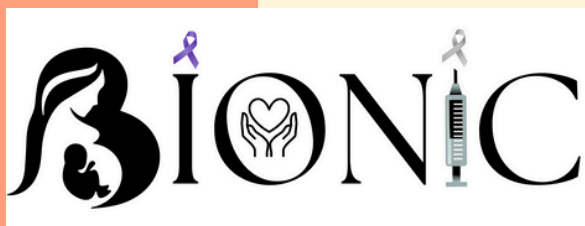
Dr. Grandi is currently the co-lead for the BIONIC study. This research will help ensure that women with these immune-mediated conditions receive the safest and most effective treatments while protecting their babies' health.

When she's not conducting research, Dr. Grandi enjoys running, playing soccer, and reading novels.

For a full list of Dr. Grandi's publications, visit the [Publication's List](#) on the IMPOWER lab website!

Share Your Thoughts

Let us know what you think of the March BIONIC Newsletter, or tell us what you would like to hear about in the next edition [here](#).



How to get in touch with us

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