

Dr. Paul Fedak

Heart Surgeon and Innovator

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Topics

- Biotechnology
- Innovation / Creativity
- Inspiration / Achievement
- Peak Performance
- Personal Growth
- Thought Leader
- Trust / Honesty

About Dr. Paul Fedak

Paul Fedak (Fee-dak) is a cardiac surgeon, translational scientist, and senior medical leader at the University of Calgary. Dr. Fedak is committed to the innovation and translation of new surgical therapies for patients with advanced heart disease.

Dr. Fedak is a graduate of the University of Toronto medical school and completed further training in cardiac surgery (FRCSC) and biomedical science (Ph.D.) in Toronto. The Royal College of Physicians and Surgeons of Canada awarded him a Detweiler Fellowship that supported advanced training in surgery for end-stage heart disease and complex valve repair at Northwestern University in Chicago. The Alberta Heritage Foundation for Medical Research (AHFMR – now known as Alberta Innovates) and the University of Calgary then recruited him as a surgeon-scientist. He developed the Campbell Family Translational Research Program that trains graduate students and aims to develop and validate novel therapies to treat cardiovascular disease. He pioneered novel sternal closure techniques and is developing tissue engineering approaches to treat heart failure using biomaterials. He has expertise in surgery for bicuspid aortic valve and its associated aortopathy. He leads a collaborative research effort with Northwestern University in Chicago to better understand mechanisms of progression and risk prediction.

He published over 150 peer-reviewed original manuscripts and numerous book chapters. His work is cited over 9000 times. Dr. Fedak serves as an Editorial Board Member for several biomedical publications, including the Journal of Thoracic and Cardiovascular Surgery and the Canadian Journal of Cardiology. The Heart and Stroke Foundation of Canada, Canadian Institutes of Health Research (CIHR), and the National Institutes of Health (NIH/NHLBI) funds his translational research program. He is the recipient of international and national research and mentorship awards. Some of these include the C. Walton Lillehei Award (American Association for Thoracic Surgery), Vivien Thomas Young Investigator Award (American Heart Association), Paul Cartier Award (Canadian Society of Cardiac Surgeons), and Wilfred Bigelow Award (University of Toronto), Watanabe Distinguished Achievement Award (University of Calgary), Telemachus Distinguished Mentorship Award (University of Calgary) and Calgary's "Top 40 Under 40" (Avenue Magazine). He holds leadership positions in the American Association for Thoracic Surgery (AATS) and Society of Thoracic Surgeons (STS) and is a Fellow of the American Heart Association (FAHA). He is recognized as a knowledge and opinion leader in cardiac surgery. He provides many international invited addresses, including a widely viewed TEDx talk.

Dr. Fedak currently holds senior leadership roles as the clinical and academic Department Head (Cardiac Sciences) and Director of the Libin Cardiovascular Institute of Alberta. These are key leadership positions within the Cumming School of Medicine and Alberta Health Services. He plays a critical role in a dynamic and fully integrated health care, research, and service delivery environment. He is responsible for realizing the Institute's vision of cardiovascular health, internationally recognized and funded research, and multidisciplinary educational programs that attract quality learners. The recent successful completion of the inaugural Harvard Medical School Surgical Leadership Program at Harvard University provides a foundation for his leadership roles.

Select Keynotes

- **Biomedical innovation: Heart surgery was the final frontier**

Heart surgery was the final surgical frontier and only became routine over the past few decades. Find out how it all started, who was involved, what it takes to be a heart surgeon, and how the latest biomedical innovations and applied research are shaping the future. This talk includes timely social messages about diversity and inclusiveness.



- **How regenerative medicine is changing modern healthcare**

In this keynote address, Dr. Paul Fedak provides an overview of the exciting therapeutic potential, possibilities, and translational challenges in trying to regenerate the human heart after injury. He highlights his state-of-the-art research in this field which has progressed over the past decade from an idea to clinical reality. This talk highlights the importance of academics working in collaboration with industry to develop pragmatic approaches for biomedical innovation.

- **How to go beyond mastery and find your heart**

What can someone doing heart surgery teach the rest of us? Dr. Paul Fedak delivers a talk that offers a rare glimpse into the process of becoming a cardiac surgeon. He explores with humor, humility and humanity what it means to perform at peak performance when literal lives hang in the balance. This talk on self-discovery will help you navigate towards peak performance in your own work or a larger organization. This keynote received a standing ovation at TEDxCalgary

- **Precision medicine: Using advanced imaging technology to develop individualized surgical strategies**

Precision medicine is one of the hottest topics in biomedical science. In this keynote, Dr. Paul Fedak provides an overview of exciting new imaging technology and an international multi-disciplinary collaboration he leads that can help in risk prediction and uses more precise and individualized surgical strategies for people with threatening aneurysms near their heart. This talk has important messages about developing teams and using collaboration toward optimal achievement.

Select Articles

- [Grab Some Popcorn! Dr. Fedak Is Ted Talking!](#)

If you have not heard that name before... Dr. Fedak is a well-respected surgeon, an inventor, a big-time researcher of bicuspid aortic valves, and an ongoing supporter of this community.

- [Paul W M Fedak The University of Calgary | HBI · Department of Cardiac Sciences](#)

List of accomplishments

- [Calgary researchers say newly discovered cell can heal heart damage in mice](#)

- [Top 40 Under 40](#)