



Making the Leap: from clinical medical physics to industry

Young Lee PhD MBA

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What this talk will be about...

- How did I end up in industry?
 - A little about me
 - Personal journey
 - How “mentorship” played a part in my journey
- Not a presentation on “how to mentor” or “be mentored”, HOWEVER, how “mentorship” has played a clear role in my career journey.



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Where do I come from?

Birthplace and family

- Born in Seoul, South Korea
- Mom - highschool teacher
- Dad - businessman

- Lots of family...
 - Mom has 4 younger brothers and sisters
 - Dad has one older sister and 5 younger siblings
 - 21-23 first cousins (lost track of how many and don't know them all!!)
- Lived very close to mom's family and saw my dad's family twice a year (huge family gatherings where we all slept on the floor during holidays)



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Age 10 to end of Undergraduate degree

Life at the Falls...

- A.N. Myer highschool – concert band, rugby, track and field, developed a love for science (had a great physics teacher (Dr. Anderson!)!!)
- My parents had a convenience store!! (aptly named Niagara Variety)

Life at McGill...

- Started a double major in Physics and Physiology
- Quickly realized Physics was more for me... ☺
- Started travelling (hugely influenced by friends who had travelled a lot)
 - Treeplanting, drive through Prairies to the Rockies, spent a part of a summer in Europe



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Next 14 years in the UK...

Education, Job, Personal growth

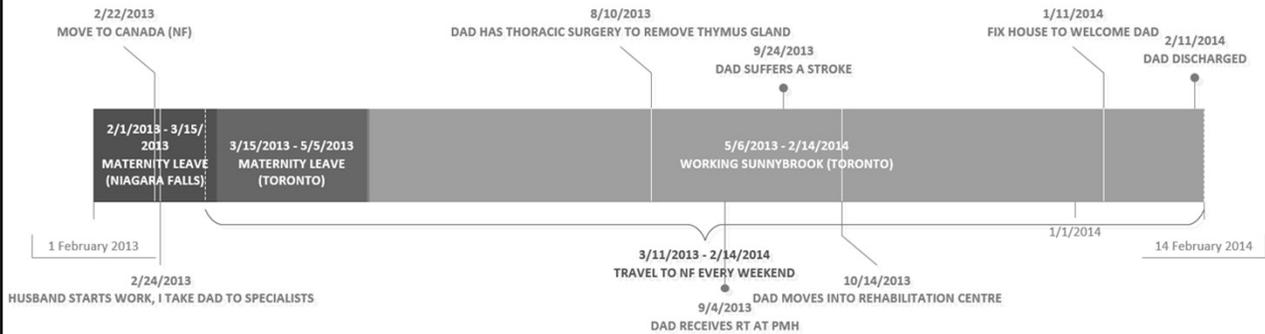
- MSc, Medical Physics at University of Surrey
- PhD, Institute of Cancer Research, University of London (Royal Marsden Hospital) in Radiation Oncology Physics
- Worked at Kent Oncology Centre (2 years)
- 1 year hiatus (travelling)
- Worked at The Royal Marsden NHS Foundation Trust (7 years)
 - Hugely multi-cultural, lots of foreign students (mainly from EU)
 - Played a lot of softball (ran the team)
- Got hitched, had a couple of kids...



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2013 changed my life...

Back to Canada



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My learnings on myself...

- Compartmentalize and what is important in life became clear
 - Family
 - Kids and husband, parents
 - Work
 - CNS physics site lead
 - Gamma Knife Icon project
 - Spine SBRT lead
- Embrace change



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Inevitably, the goal as a program is to provide exceptional person-centred care and I think we are doing a very good job of that.

Context
SMART has been growing at an annualized rate of ~10% per year. In the first year (2017), we were ~1,000 new patients. In 2021, we were ~2,200 new patients. "The hospital has been growing, it has doubled in half year in the past few years and we are pleased to bring a new piece to that puzzle," said Colleen.

Several factors contribute to this rapid growth, including an aging population and rising risk factors. "Cancer therapies like the use of the highest technology of proton beams in Canada with 40% of patients suffering from a chronic condition."

	2019	2017	2021
NEW PATIENTS	1,000	1,000	2,200
PROTON THERAPY	1,300	1,100	1,500
PROTON THERAPY COSTS	21,152	25,163	27%

Key milestones, limited costs, and treatment with SMART since 2018 to 2021.

Challenges
The geographic region is dispersed and patients have to travel long distances to receive proton therapy. "I had concerns with a significant number of low-income patients who cannot afford travel and stay or travel and the challenge of treatment delivery."

Health care professionals are predominantly generalist and not specialized. "The equipment cost is high, the equipment was not used at the time, and we had to invest in a new piece of equipment. The investment was high, and we had to invest in a new piece of equipment. The investment was high, and we had to invest in a new piece of equipment."

Future Plans
Expand the program to other regions. "We are looking at expanding to other regions. We are looking at expanding to other regions. We are looking at expanding to other regions."

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UTDRO WOMEN IN LEADERSHIP

This has been a tremendous year for female advancement in our work. In light of the UTDRO's reporting, the awarding of the award to three female faculty members in various roles: Professor Rebecca Wong, and Assistant Professor, Young Lee and Colleen Dickie.

Being a woman in the field of radiation oncology brings its own set of challenges, and as many struggles as being the female counterpart in an engineering or science or sports environment.

"The biggest challenge was highlighted the importance of being recognized as a leader, capable of making tough decisions while being passionate and caring, is much harder to do as a woman."

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Colleen Dickie, MSc, MRTT(MR), Assistant Professor

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Colleen Dickie and she has not experienced that in the Radiation Oncology Program (RO) at UTDRO. "I think in our field, many of us have just had to plow through and have not had a lot of mentorship," said Young Lee.

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Young Lee, PhD, MIPM Assistant Professor

"Working in such a dynamic, innovative and world-renowned program that focuses on the needs of patients in the most cutting-edge of technology."

Young Lee has been passionate about physics since high school and is excited to share her passion for research and teaching with students. "I think in our field, many of us have just had to plow through and have not had a lot of mentorship," said Young Lee.

New perspective, new thoughts...

- Making a bigger difference became important
- Completed a Global Executive MBA program though Rotman, University of Toronto
 - Met many new healthcare professionals who are leaders – clinicians, leaders in pharma, government advisors, lawyers...
 - Learned so much of my own capability, peer-mentoring, new conversations
- Recruited to Elekta during this time when "very open to change"
- Influencing job role, projects, networking



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Working in Industry is allowing me to grow in different ways

- Learning about new professions – meeting and working with colleagues with different knowledge
- Leveraging my clinical knowledge to help industry grow – help reduce gap between industry and clinical worlds
- Opportunity to grow my network - new mentors and mentees!
- Opportunity to engage in new projects – medical physics input
- Able to engage clinical community in new ways
- Realizing potential of my skillset



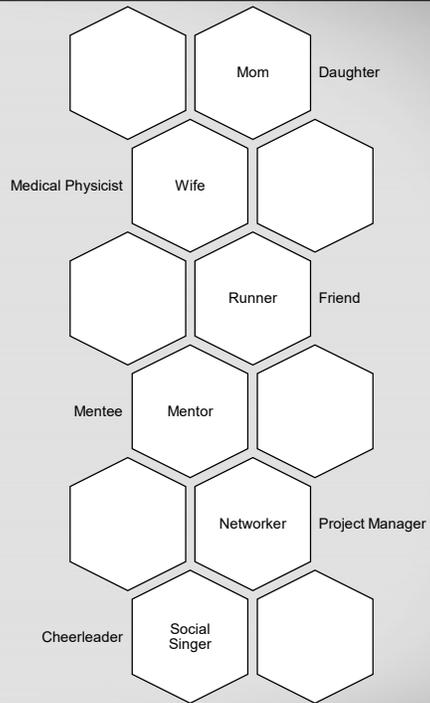
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Mentorship has played a big role...

- Peer mentoring
- Providing mentorship
- What I wanted, What I give – became a unique mentor
Huge satisfaction from seeing my “mentees” do well
- Learning and getting unique perspectives



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Thank you

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