



GLOBAL LEARNING CENTERS: *SUSTAINABLE AND IMPACTFUL RADIOLOGY OUTREACH*

Lessons learned from a Global Learning Center

- Evolution in radiology education and outreach from International Visiting program
- The power of conceptual thinking
- The beauty of collaboration and ability to listen



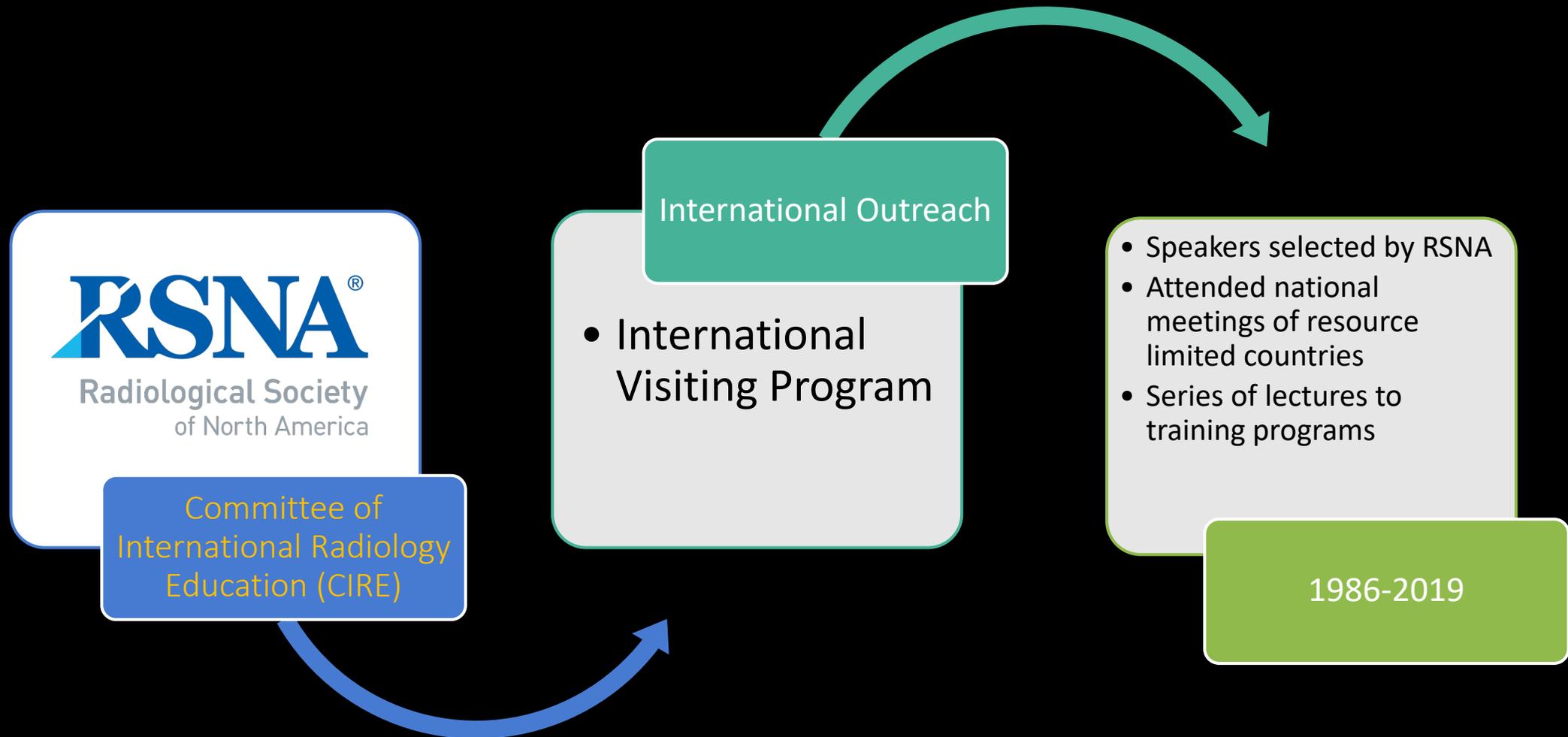
GLOBAL LEARNING CENTERS: *SUSTAINABLE AND IMPACTFUL RADIOLOGY OUTREACH*

OUTLINE

- Introduction: Why global learning center?
- Planning phase
- Implementation phase
- Online continuing education phase
- Exit phase
- Conclusion

EVOLUTION FROM INTERNATIONAL VISITING PROGRAM TO GLOBAL LEARNING CENTERS:

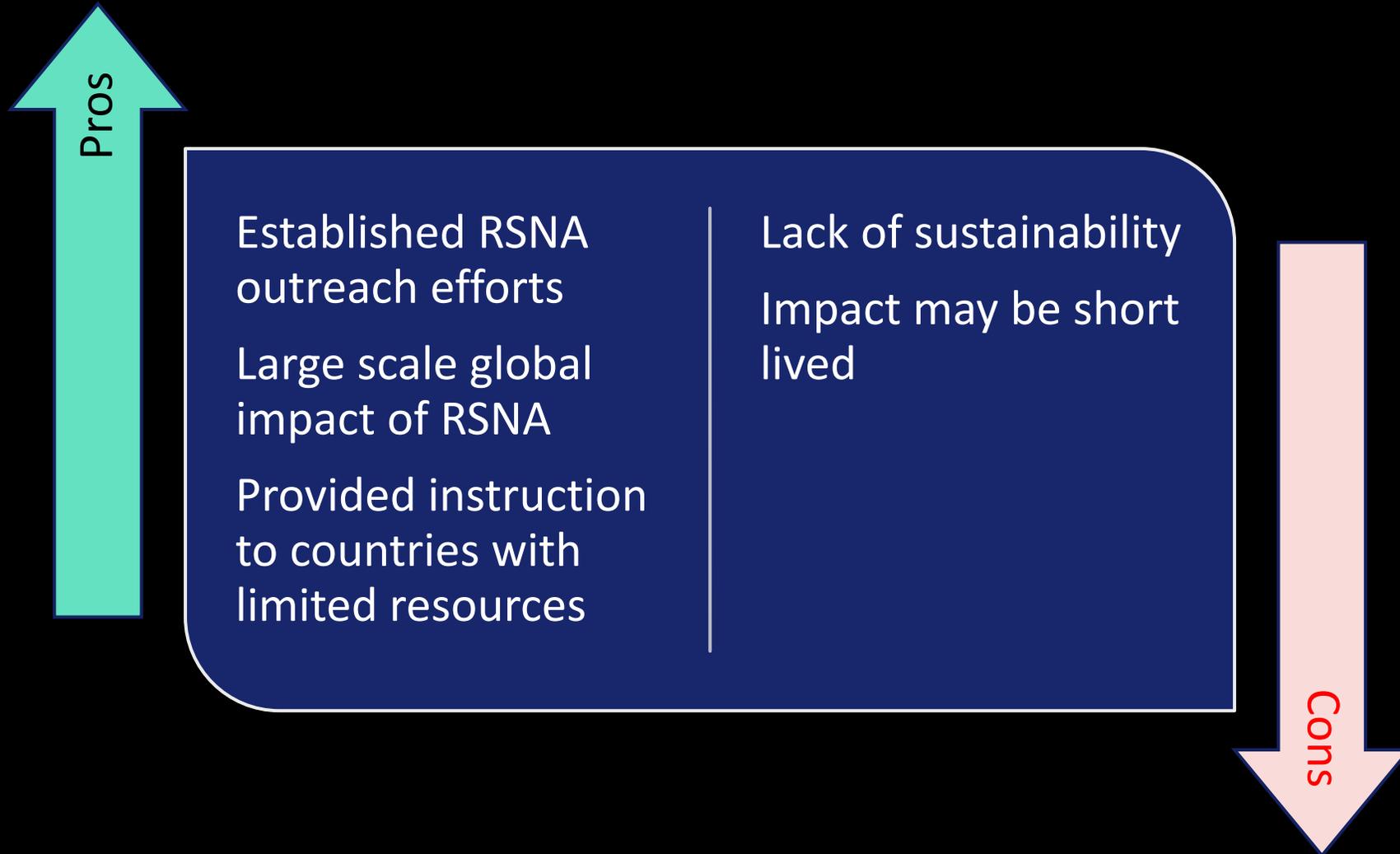
SUSTAINABLE AND IMPACTFUL RADIOLOGY OUTREACH



GLOBAL IMPACT OF INTERNATIONAL VISITING PROGRAM 1986 - 2019



INTERNATIONAL VISITING PROGRAM



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Goals of GLC

Accountability

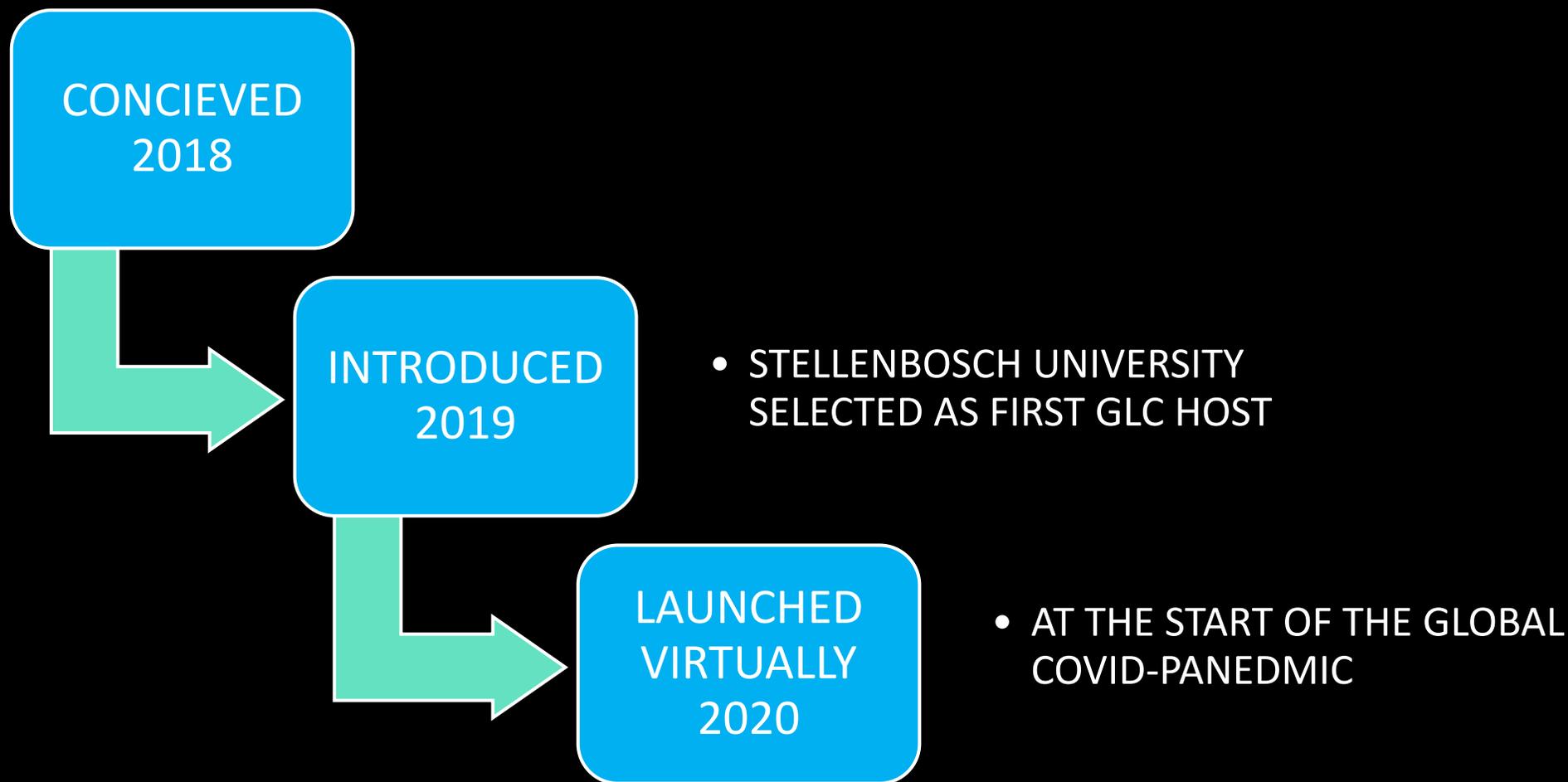
Sustainability

Continuous education and
support

Fostering international
collaborations

Re-envisioning the IVP: GLC conceptualized in 2018

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IMPLEMENTING A CUSTOMIZED LEARNING PLAN

STELLENBOSCH EXPERIENCE

RSNA Leadership and Staff

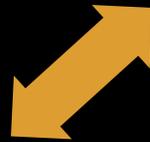
- Chair, Committee on International Radiology Education
- Liaison for International Affairs
- Directors of International Affairs
- Directors of Online Education

Stellenbosch University, South Africa

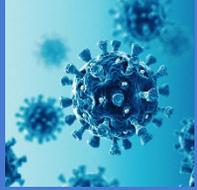
- Program Director, onsite Senior Radiology Faculty
- Subspecialty (cardiothoracic and musculoskeletal imaging) program coordinators
- Onsite radiology faculty

RSNA Radiologist Members

- Program Director, RSNA senior radiologist—appointment for the entire 3 years
- Two teams of cardiothoracic and musculoskeletal radiologists



CHALLENGES AND OPPORTUNITIES



COVID pandemic at the onset of program



Initially a setback

Forced the program to pivot to an online format
However, the team used this to create relationships, a better understanding of local needs and the development of a meaningful curriculum



Limited internet access, infrastructure and technical equipment

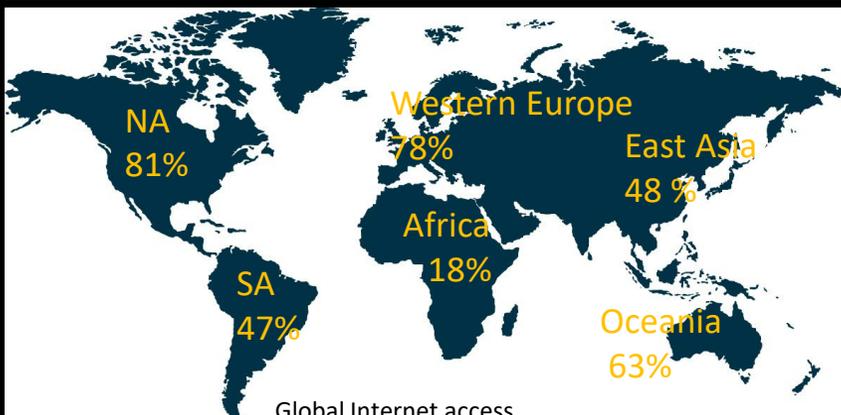


Focus on tools that are mobile friendly and accessible to target population: high speed internet, secure network and electronic classroom

GLC team used platforms like Whatsapp and Zoom to enable close and frequent contact between South African and RSNA team

Informal teaching sessions with ability to review cases as well as didactic sessions

Setup and introduced apps enabling distance learning for instance teaching musculoskeletal ultrasound (REACTS)



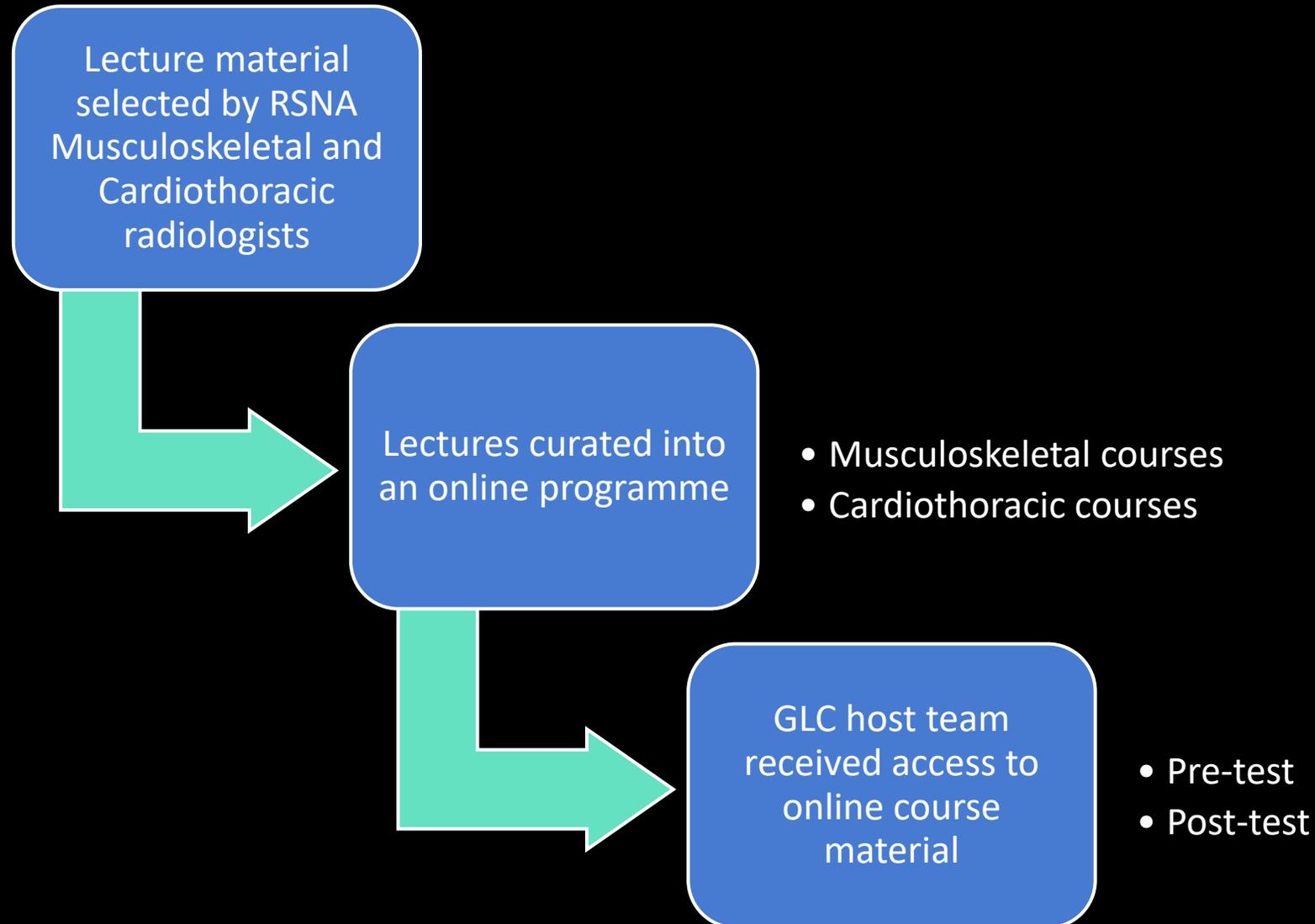
EXPERIENCE FROM INAUGURAL GLOBAL LEARNING CENTER

PLANNING PHASE

- Inaugural GLC program: Stellenbosch University/Tygerberg Hospital
Under the leadership of Prof Richard Pitcher
- Specific **areas of need** within the department were **identified**
- **Curriculum** was **derived from** the perceived **greatest areas of need**



GLOBAL LEARNING CENTERS: *ONLINE MODULE CREATION*

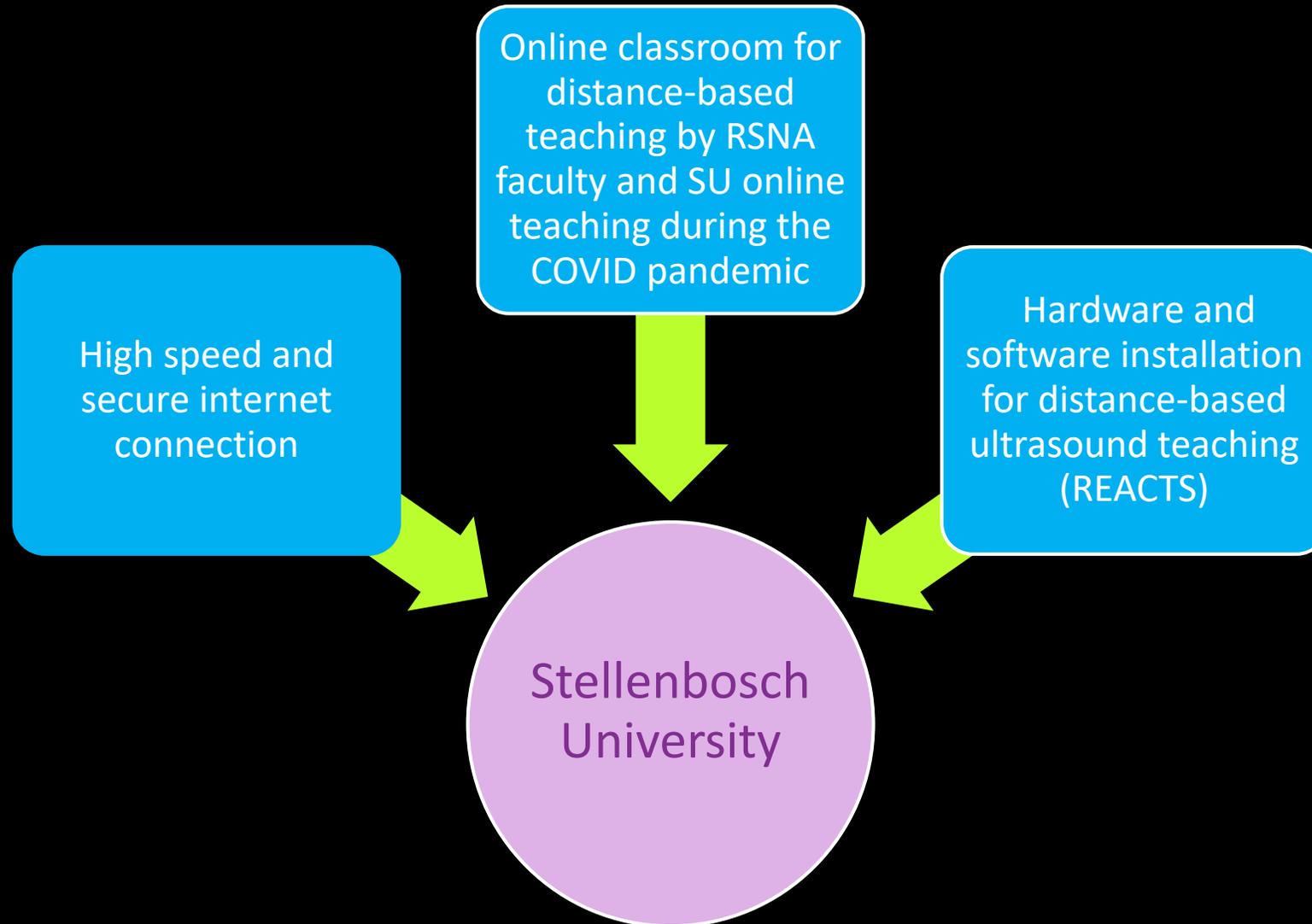


GLOBAL LEARNING CENTERS: ONLINE MODULE PROGRAM

2020	3	<p>Musculoskeletal Course 1</p> <ul style="list-style-type: none"> • My Approach to Imaging of Arthritis • Avulsion Injuries of the Upper and Lower Extremities • Imaging of Spondyloarthritis • Meniscus of the Knee • Shoulder Ultrasound (Demonstration)
2020	3	<p>Cardiothoracic Course 1</p> <ul style="list-style-type: none"> • Interstitial Lung Disease Update • Interstitial Lung Disease: Guide for the Perplexed • Fleischner Criteria for IPF • Brief Overview to Approach and Management • Panel
2020	4	<p>MSK Course 2</p> <ul style="list-style-type: none"> • MRI of Traumatic Lower Extremity Emergencies • Imaging of Shoulder Arthroplasty • Acute Muscle Injuries: MRI Protocol, Classification, and Prognosis • MRI of Ankle Impingement • Musculoskeletal Series: Ultrasound <p>Live Virtual Session: Case-Based Review of MRI Elbow Cases</p>
2020	4	<p>Cardio Course 2</p> <ul style="list-style-type: none"> • Emerging Concepts in Intramural Hematoma Imaging • Aortic Intramural Hematoma: The Prognostic Impact of CT Features • CT Angiography of Acute Aortic Syndrome • Thoracic CTA • Image Predictors of Treatment Outcome after Thoracic Aortic Dissection Repair
2	2/1/21-4/30/21: 3 month hiatus (COVID)	
2021	1	<p>MSK Course 3</p> <ul style="list-style-type: none"> • Ligamentous Injuries of the Knee: Mechanistic Approach with Emphasis on MR Imaging • MRI versus Ultrasound of Muscle: Choosing When and How • ASRT@RSNA 2019: Hip Imaging Update • Imaging of Muscle Quality: Myosteatosis Revisited • MRI of Ankle Instability <p>Live Virtual Session: Case-Based Review of MRI Knee Cases</p>

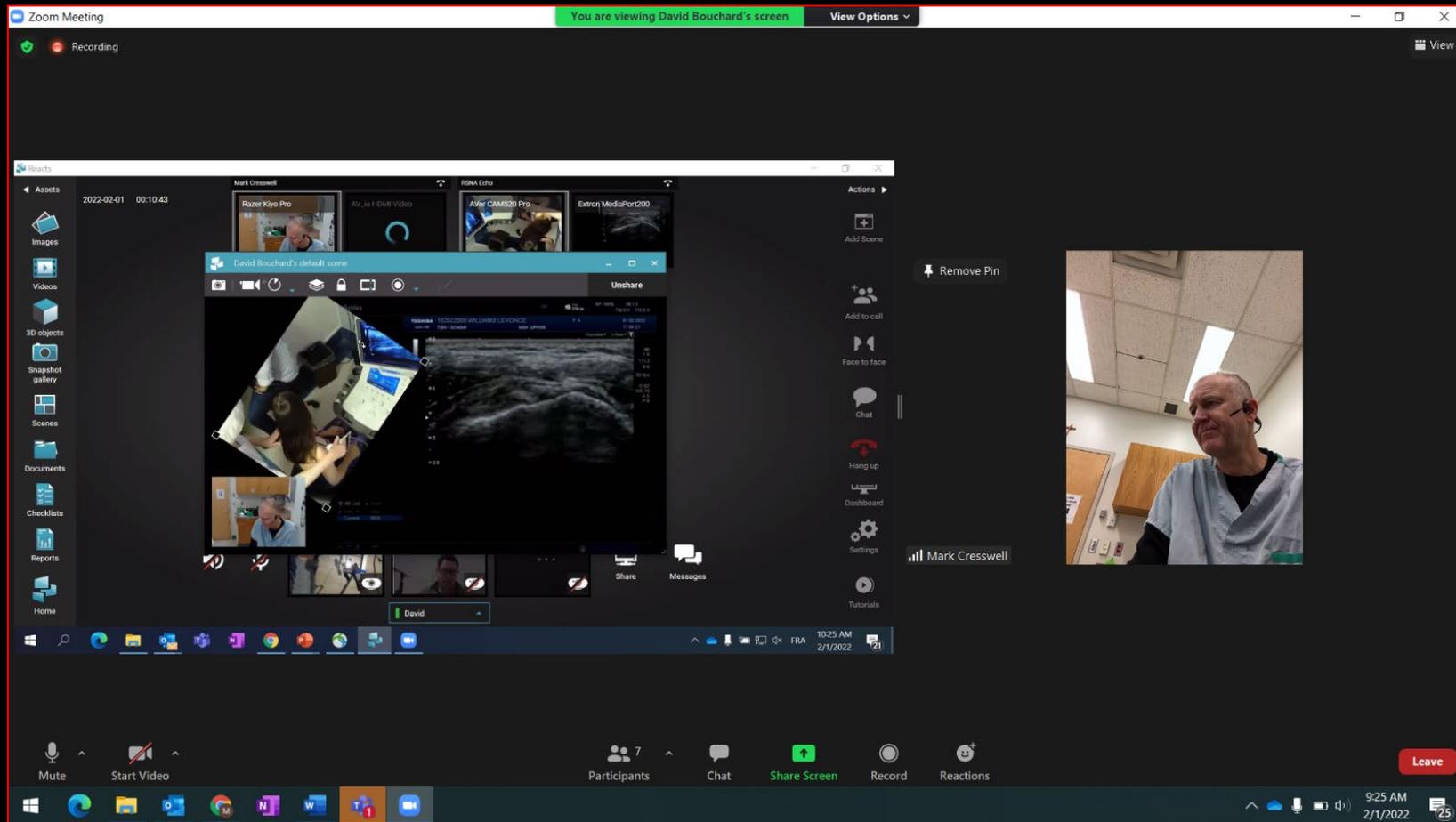
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OTHER RESOURCES PROVIDED BY RSNA



ONLINE RESOURCES

DISTANCE-BASED ULTRASOUND TEACHING

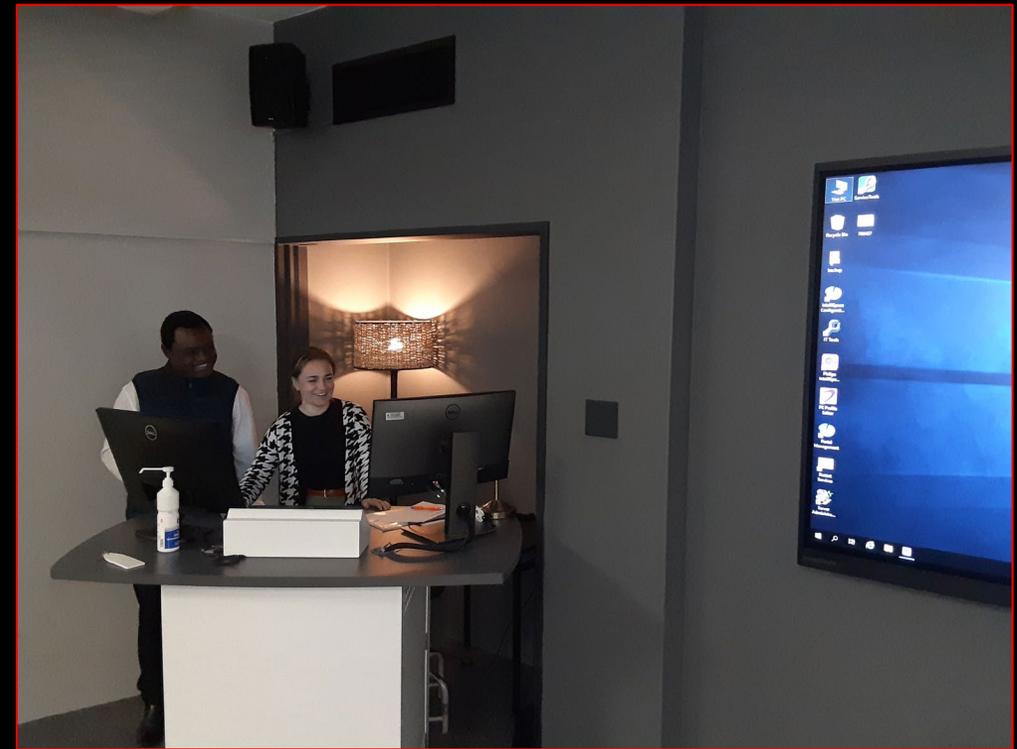


Interaction between South African colleagues (left) and RSNA team member in Canada at the time (right) via the novel REACTS app.

This app enabled remote control of the ultrasound probe useful in teaching musculoskeletal technique despite being miles apart.

ONLINE RESOURCES

ONLINE CLASSROOM



Online teaching sessions in action at
Stellenbosch University

GLOBAL LEARNING CENTERS: ONSITE VISITS PROGRAM

Subspecialty Team	Mode	Month
MSK abstract work	varies	Apr-22 ---on
Cardiothoracic	blended, virtual	May-2022
MSK	blended, virtual	Jun-2022
Cardiothoracic	blended, virtual	Jul-2022
<i>MSK</i>	<i>virtual session</i>	<i>August</i>
Cardiothoracic	in person	Aug 15-19
MSK	in person	Sept 12-16
Cardiothoracic	in person	Oct 10-14
MSK Dr. Vlok in Vancouver	in person	Oct-2022
RSNA Annual Meeting	in person events	Nov-2022
MSK	blended, virtual	Feb-2023
Cardiothoracic	blended, virtual	Mar-2023
MSK	in person	TBD- 2023
Cardiothoracic	blended, virtual	May-2023
End of Program Recognition Events	virtual, synchronous	Jun-2023

GLC ONLINE LECTURES



THE ELBOW

APPROACH TO ILD

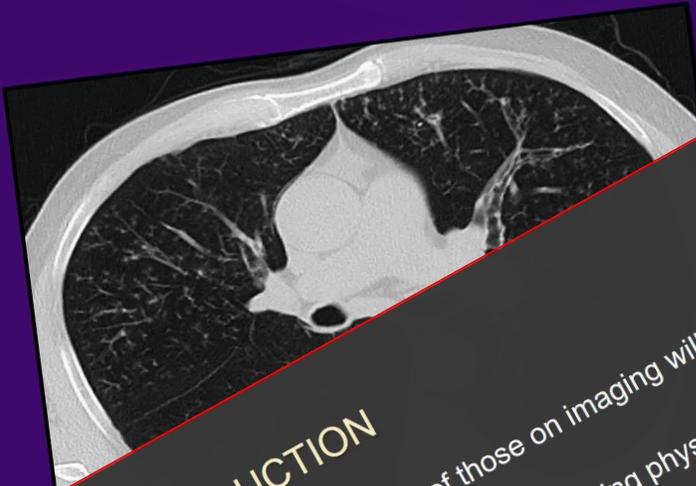


Sudhakar Pipavath



Cardiac CT-Applications

- Cardiac gated CTA is used for:
- coronary CTA (CAD, anomalies)
- calcium score
- aortic



Motamed Kambiz

CONGENITAL HEART LESIONS MRI

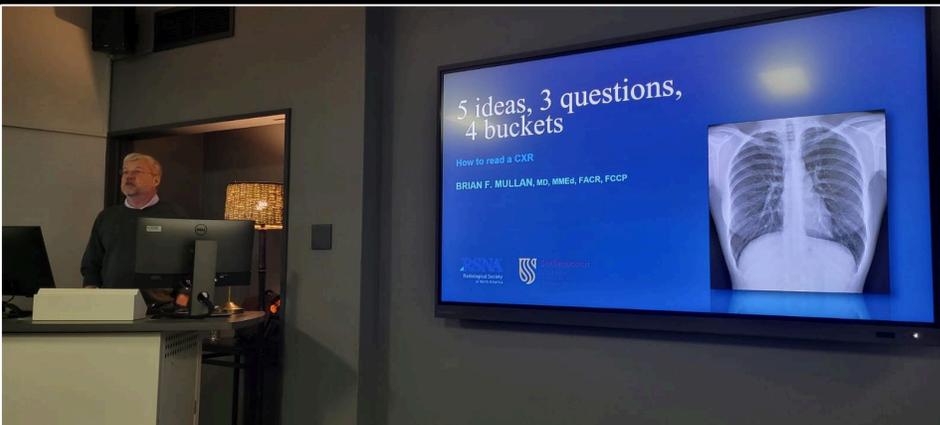


Elsie Nguyen

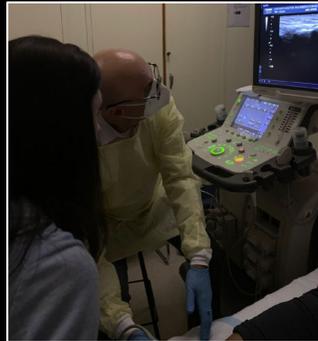
INTRODUCTION

- Readily recognition of those on imaging will
- Decrease patient (and referring physician!) anxiety
- Avoid unnecessary further imaging or biopsy
- appropriate treatment (injection, physiotherapy)

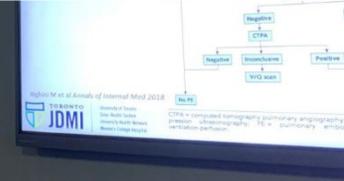
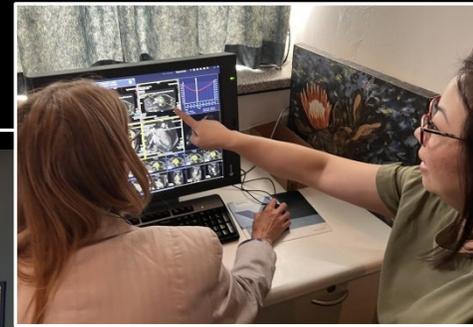
GLC CARDIOTHORACIC ONSITE VISIT AUGUST 2022



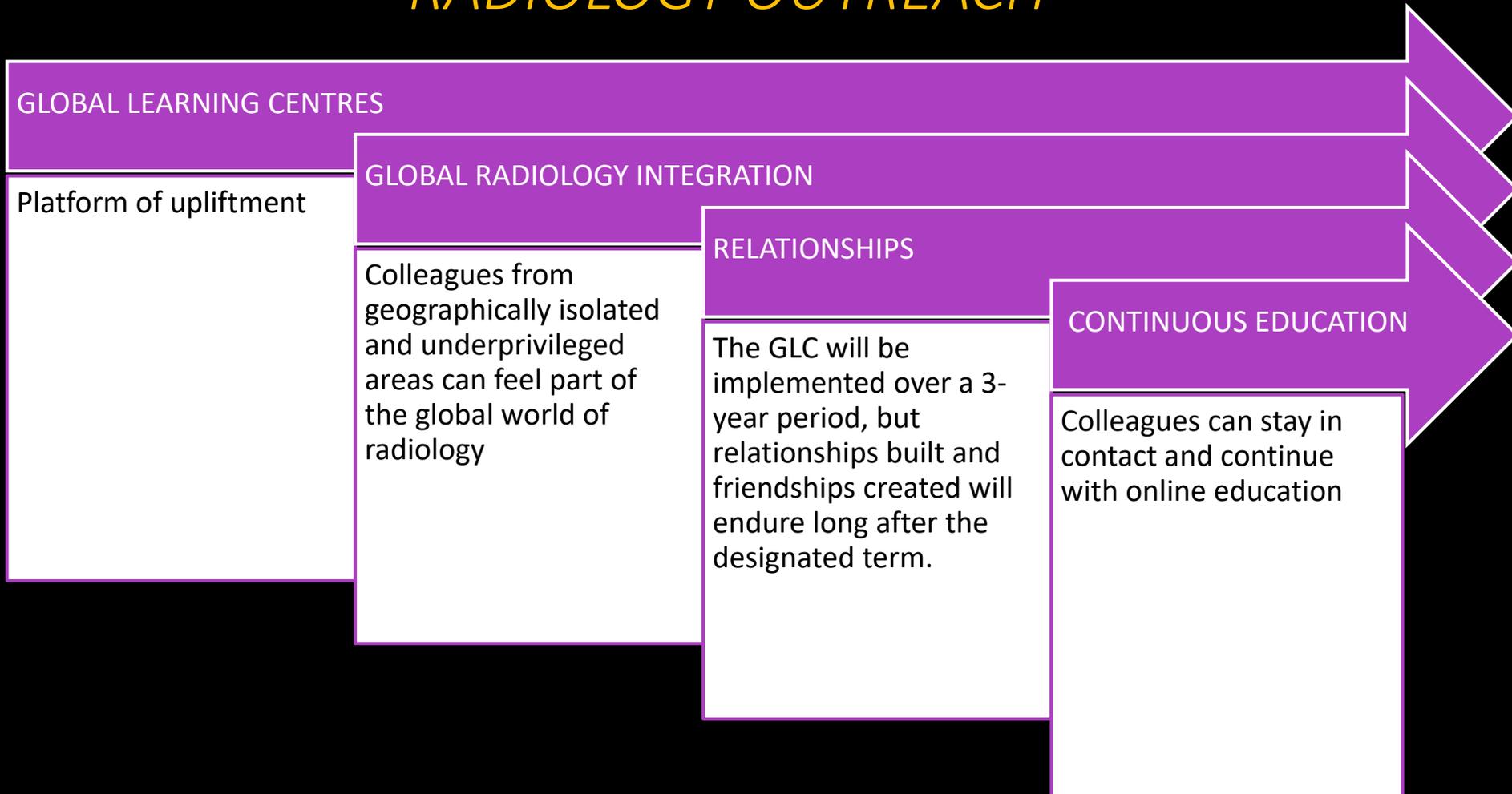
GLC MUSCULOSKELETAL ONSITE VISIT SEPTEMBER 2022



GLC CARDIOTHORACIC ONSITE VISIT OCTOBER 2022



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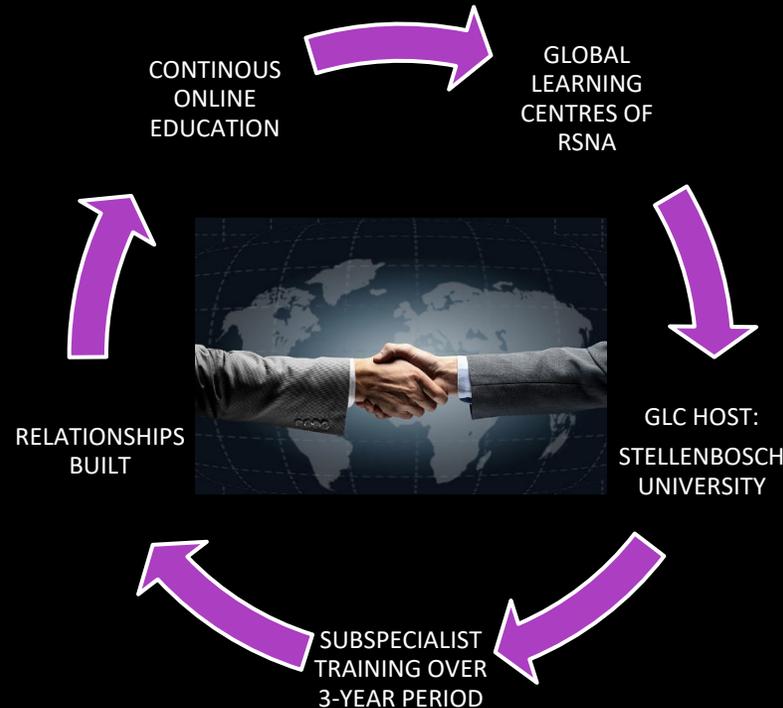
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CONCLUSION

5. The current recipient of the Derek Harwood-Nash fellowship, Dr Sucari Vlok, coming from South Africa, closes the circle

4. Derek Harwood-Nash was a tireless advocate of radiology outreach and RSNA president who envisioned and played a leading role in global radiology education.

3. The Derek Harwood-Nash fellowship program was integrated into the GLC. Derek Harwood-Nash himself grew up and studied in Southern Africa, earning his MBChB degree with distinction from the University of Cape Town, South Africa.



1. Collaboration is a partnership where one is reminded of the importance to listen to one another, without which our need at Stellenbosch University/Tygerberg Hospital would not have been met during the COVID pandemic.

2. The board of RSNA Radiologists' rich history of visionary thinking transformed and led Radiology from its inception to where we are today



THANK YOU

"Alone we can do so little;
together we can do so much."

– Helen Keller