Cancer Ablative Therapy (CAT) Program

Dr. Arjun Sahgal, Professor Radiation Oncology
The Technology of Cancer Ablation Therapy (CAT)

Inventing the future of cancer care

Cancer Ablation Therapy Program:
Saving lives through precision treatment

Gamma Knife ICON

MR Simulator/Brachytherapy

MR LINAC
Frameless Image-Guided SRS: GK Icon
Case: Breast Cancer with 2 brain metastases
WBRT

SRS
5 years later: SRS alone
Brain SRS at the OCC

WBRT vs Stereo

Courses of treatment


WBRT
SRS

The Edmond Odette Cancer Centre
29 Mets Treated with SRS in a Single Session
North American ICON Research Consortium (N-ICON)

- Sunnybrook (PI)
- UCSF
- Cleveland Clinic
- Madison College Wisconsin
- Wash U Seattle
- U Virginia
- U Texas Southwestern
- 1st meeting Feb 2018
Body MRI
MRI Simulator: A specialized RT MRI

Sharper Visualization
MR Brachytherapy
Future of Radiation IGRT: MRGRT
OCC Getting Ready for Human Trials
Odette Cancer Centre a Global Partner in the MRL Consortium

- Utrecht (Eso)
- MDACC (H&N)
- NKI (Rectum)
- MCW (Panc)
- Royal Marsden (Cervix/Breast)
- Christie (Lung)
- Sunnybrook (CNS)

Sept 2015
MRI Visualization
# MRL/HIFU/Microbubbles: CFI 15 M (Czarnota)

## Project Information

<table>
<thead>
<tr>
<th>Project title</th>
<th>Combined MRI-Linac Ultrasound Therapy Instrumentation</th>
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<tbody>
<tr>
<td>Administrative institution</td>
<td>Sunnybrook Health Sciences Centre</td>
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<td>Collaborating institutions</td>
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### Project Leader

<table>
<thead>
<tr>
<th>Name</th>
<th>Czarnota, Gregory</th>
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<tr>
<td>Title/position</td>
<td>Senior Scientist</td>
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### Project Funding

| Total project cost | $15,600,000 |

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The Edmond Odette Cancer Centre
CAT is launched: 35 M project

Developing clinical utility with many first in world / first in human

Bright future for R&D and offering our patients advanced RT

MRL has huge applications for all sites and trials will begin in 2019