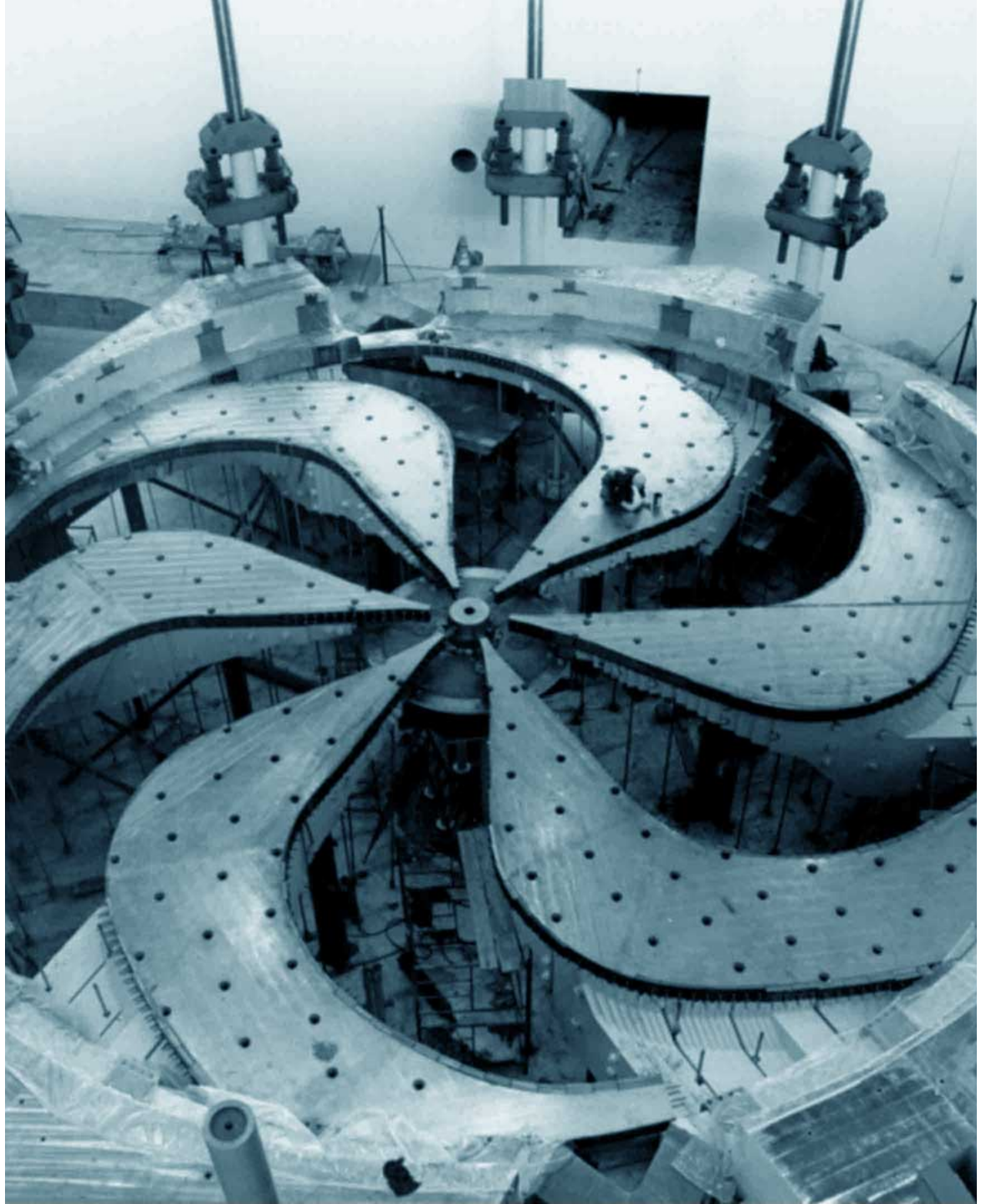
Life Sciences Division

Parallel Convener Report

Caterina Ramogida & Monika Stachura

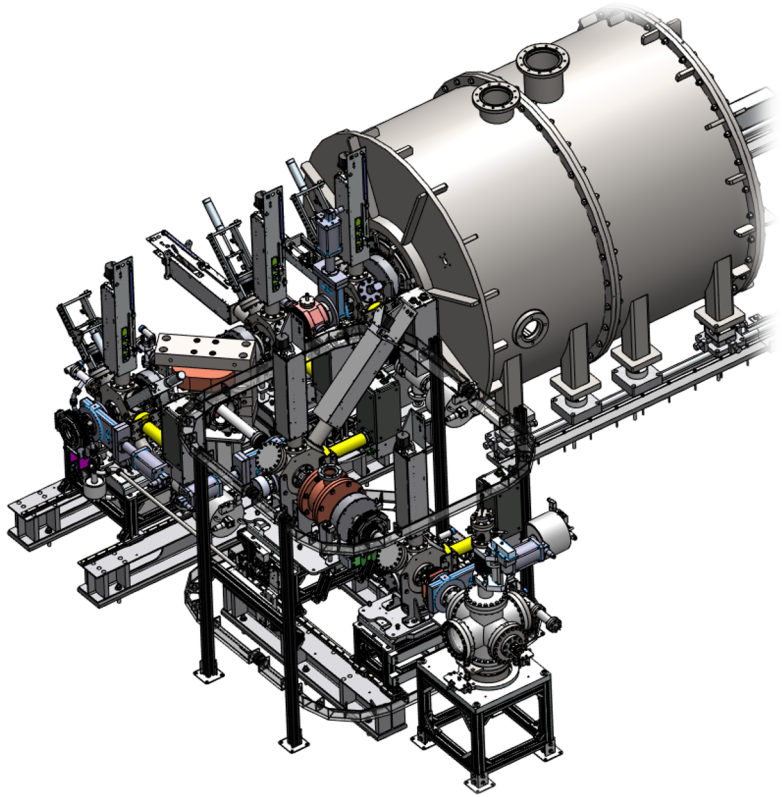
Life Sciences

2020-08-21



Discovery, accelerated

FLASH Radiotherapy



Magdalena Bazalova-Carter

University of Victoria

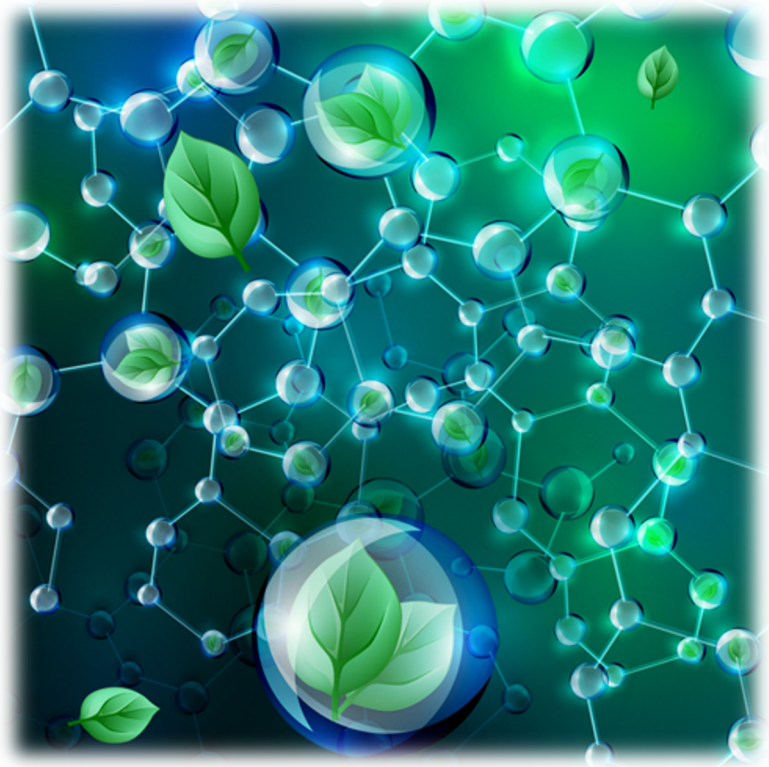
Bio-Actinide Chemistry

59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho
91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es

Rebecca J. Abergel

Berkeley UNIVERSITY OF CALIFORNIA

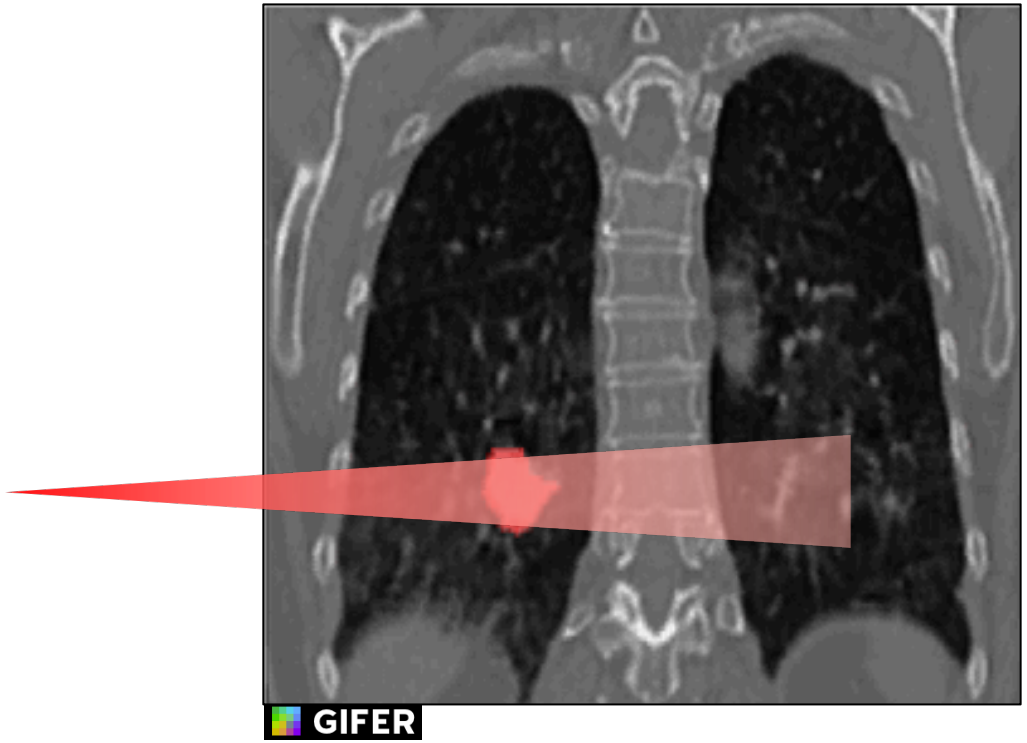
Green Radiochemistry

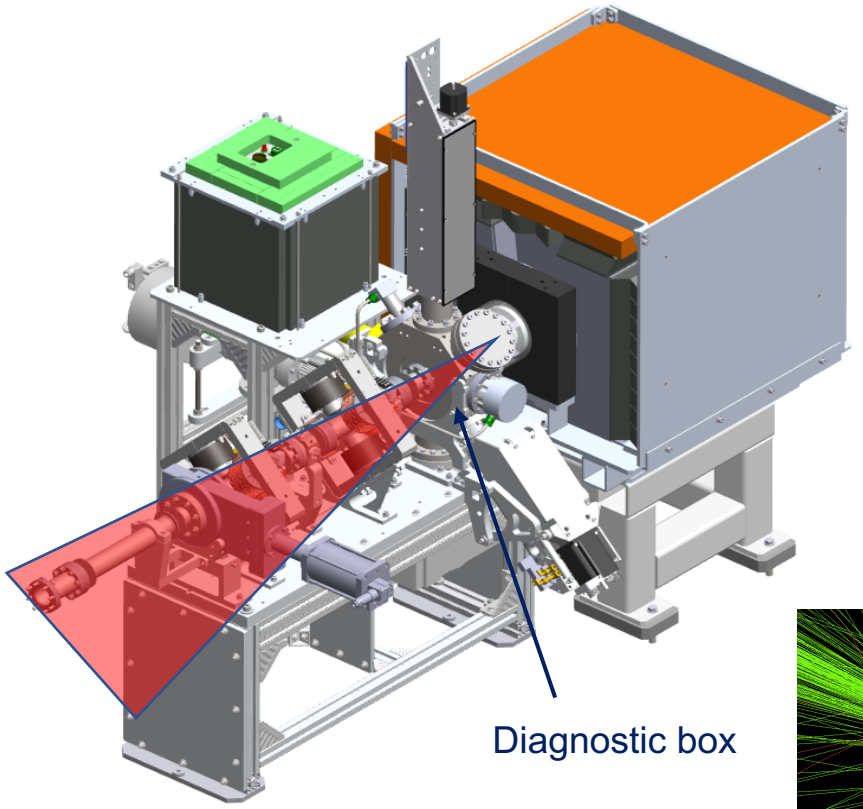


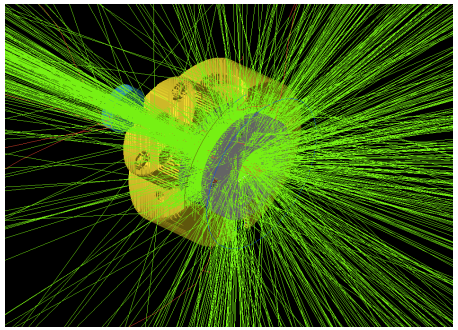
Peter J. H. Scott

MICHIGAN MEDICINE

FLASH Radiotherapy

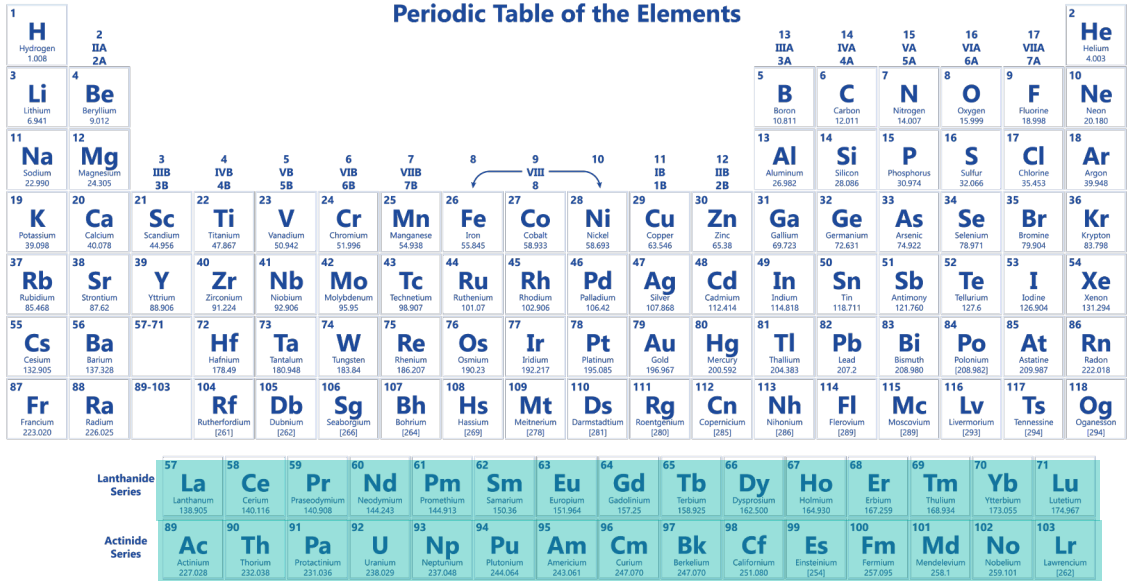






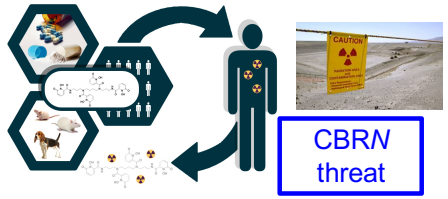
External beam radiation therapy – single treatment at ultrahigh dose-rate

Bio-Actinide Chemistry

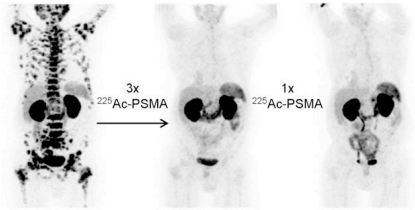


Detection and Separation (Fuel Cycle, Critical Materials)

Decontamination and Remediation

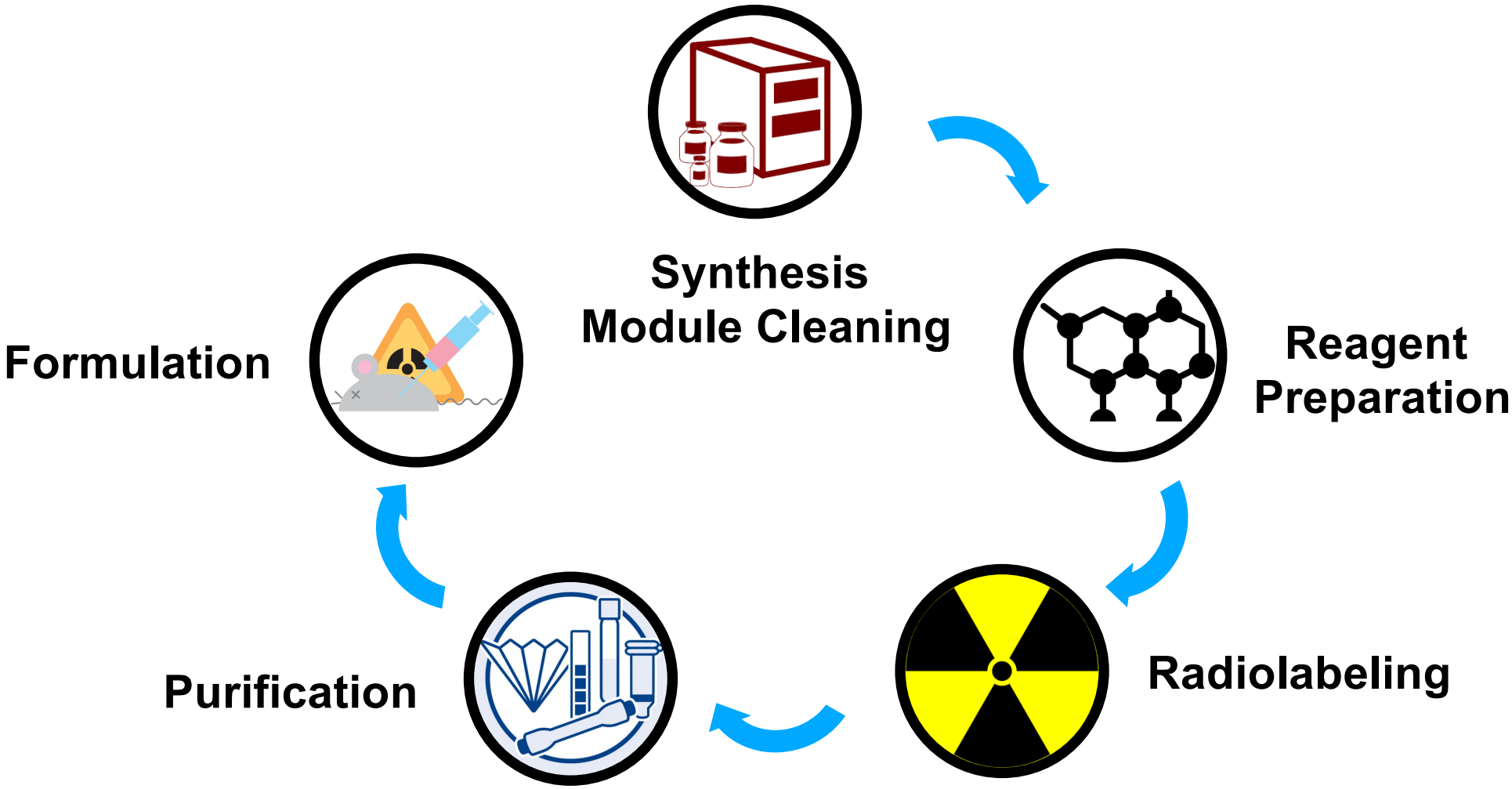


Medical Applications (Molecular Imaging & Therapy)



Biological applications of actinides and their coordination chemistry

Green Radiochemistry



Reduce or eliminate use and generation of hazardous substances in radiopharmaceutical synthesis

Personalized Medicine

Image source: Genetic Literacy Project

Life Sciences Division – Parallel Session Report

- Theranostics are the future of nuclear medicine
- Leveraging TRIUMF's unique facilities for rare medical isotope production and novel external beam therapies
- Exploiting emerging technologies in big data and AI towards personalized & precision medicine

Thank you
Merci

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Discovery, accelerated

Personalized Medicine

Image source: Genetic Literacy Project