

Alceli
Proton Therapy

Radiotherapy that is
Precise, Safe, and Effective

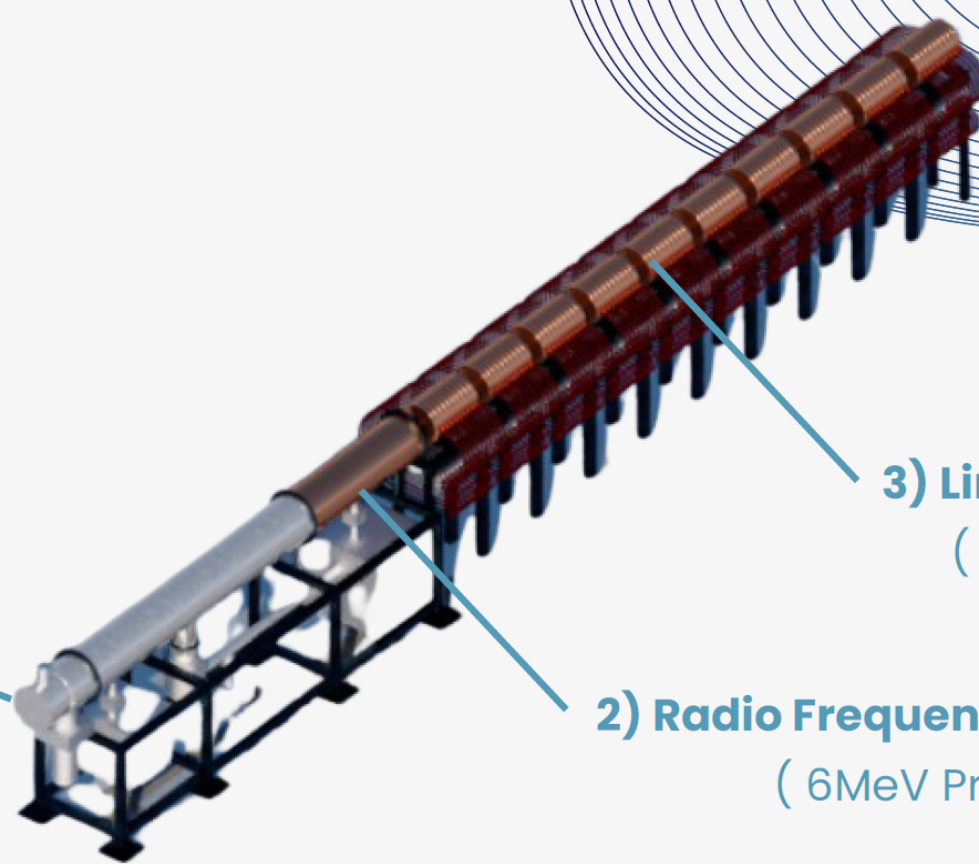
Prof Rebecca Seviour

University of Huddersfield
Queensgate,
Huddersfield, UK

Alceli Limited
Enterprise Centre,
Aberdeen Energy and Innovation Park,
Bridge of Don, UK

Our Proton Machine

1) Ion Source
(60 keV Protons)



3) Linear Patented Accelerator
(80 to 200 MeV Protons)

2) Radio Frequency Quadrupole
(6MeV Protons)

SAFE & SIMPLE

- Designed for clinics
- Narrow beam delivery
- Low power
- Minimal cooling
- No Secondary radiation
- Single person support

MODULAR

- Process manufactured
- Uncomplicated delivery
- Simple construction and resource needs

AFFORDABLE

- Reduced capital outlay
- Lower operating & maintenance costs
- Long lifecycle
- No radiation related decommissioning costs

REGULATORY

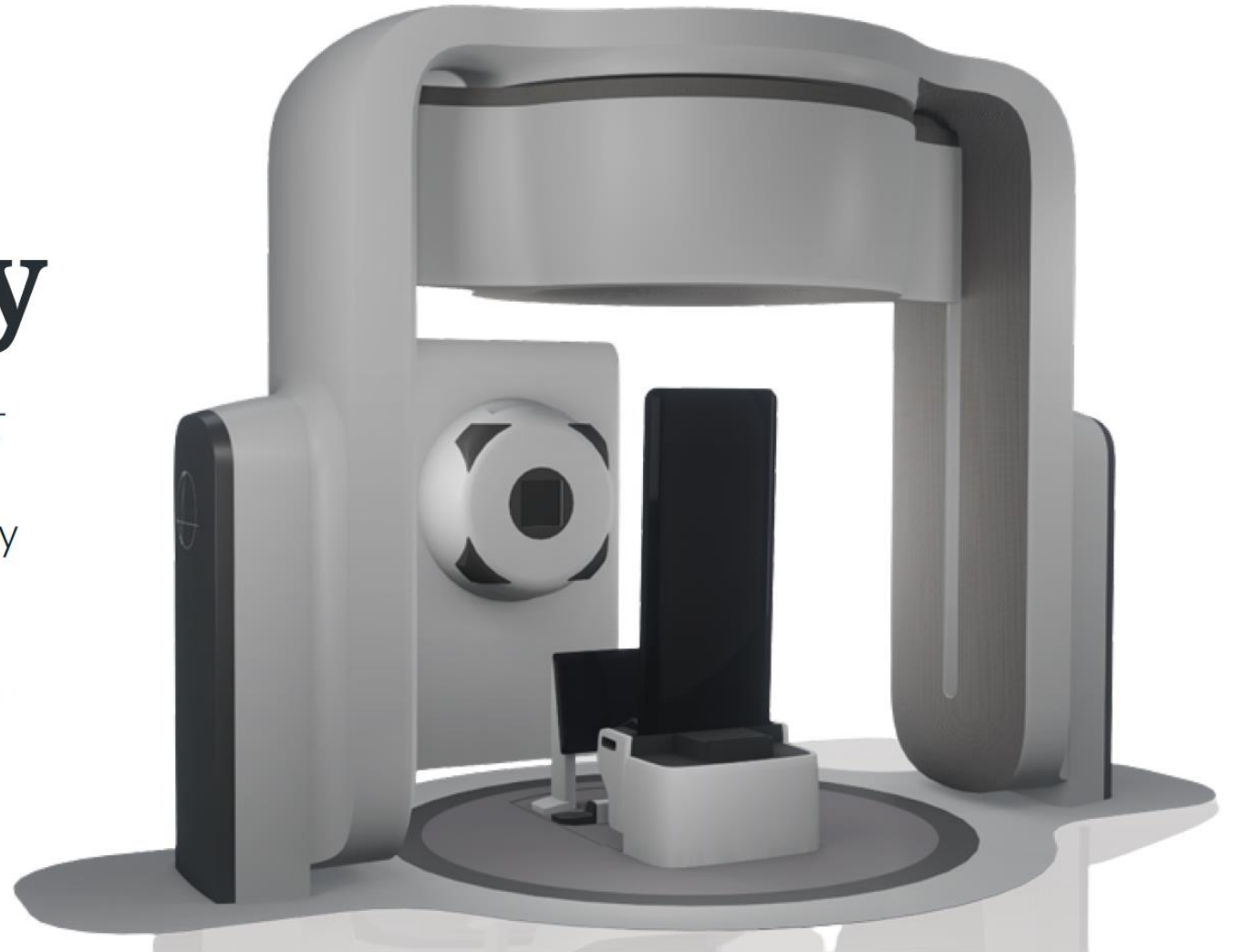
- ISO 9001 certification
- ISO 13485 certification
- IIb medical device compliant
- No radiation health issues
- Recyclable at end of life

TIME

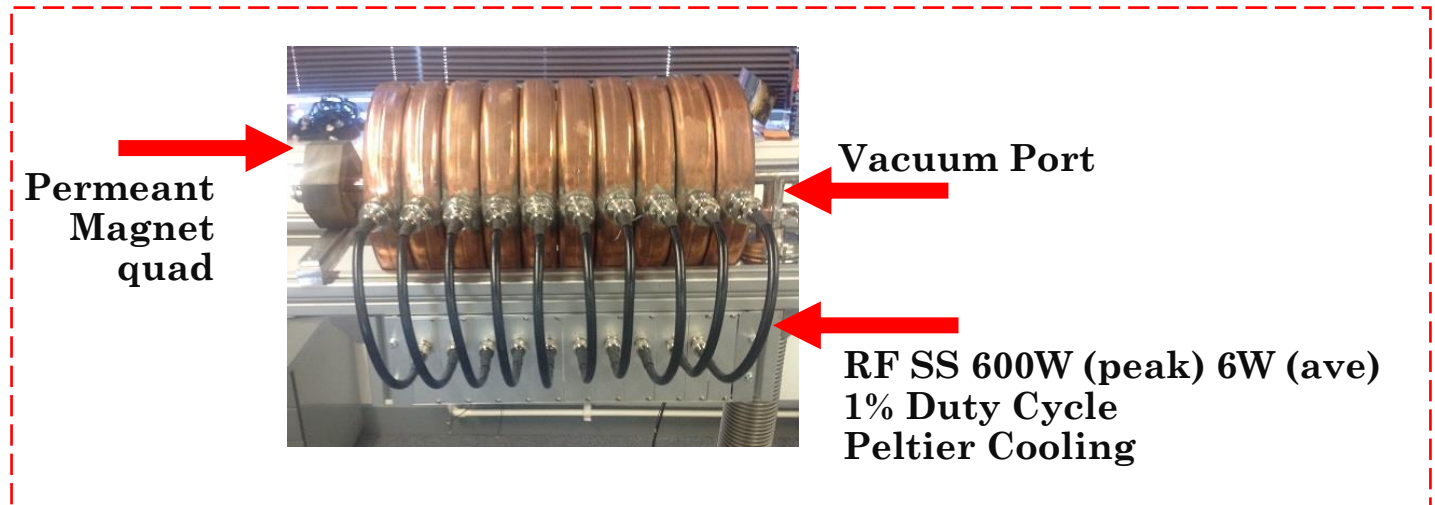
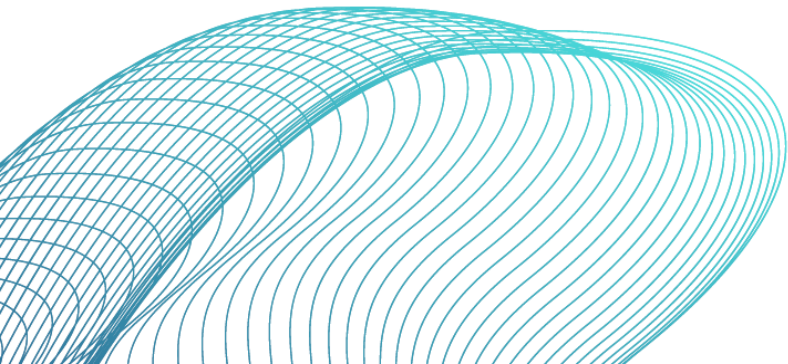
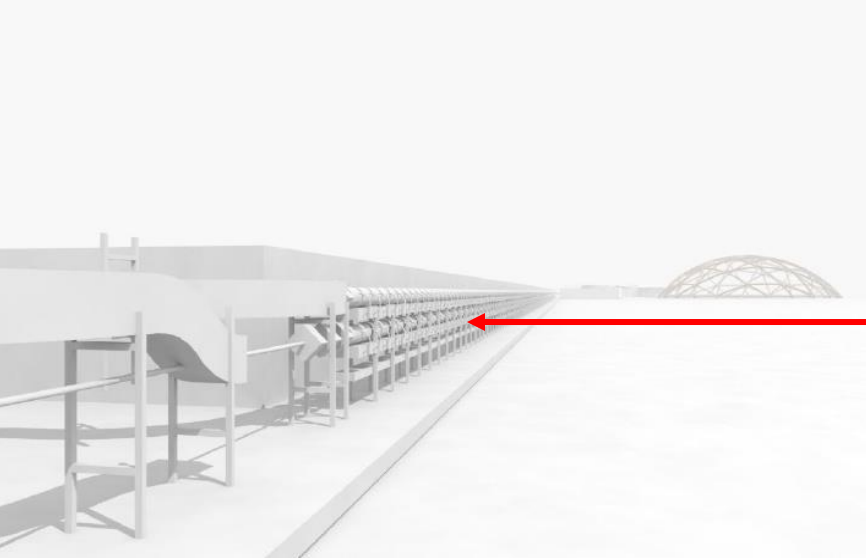
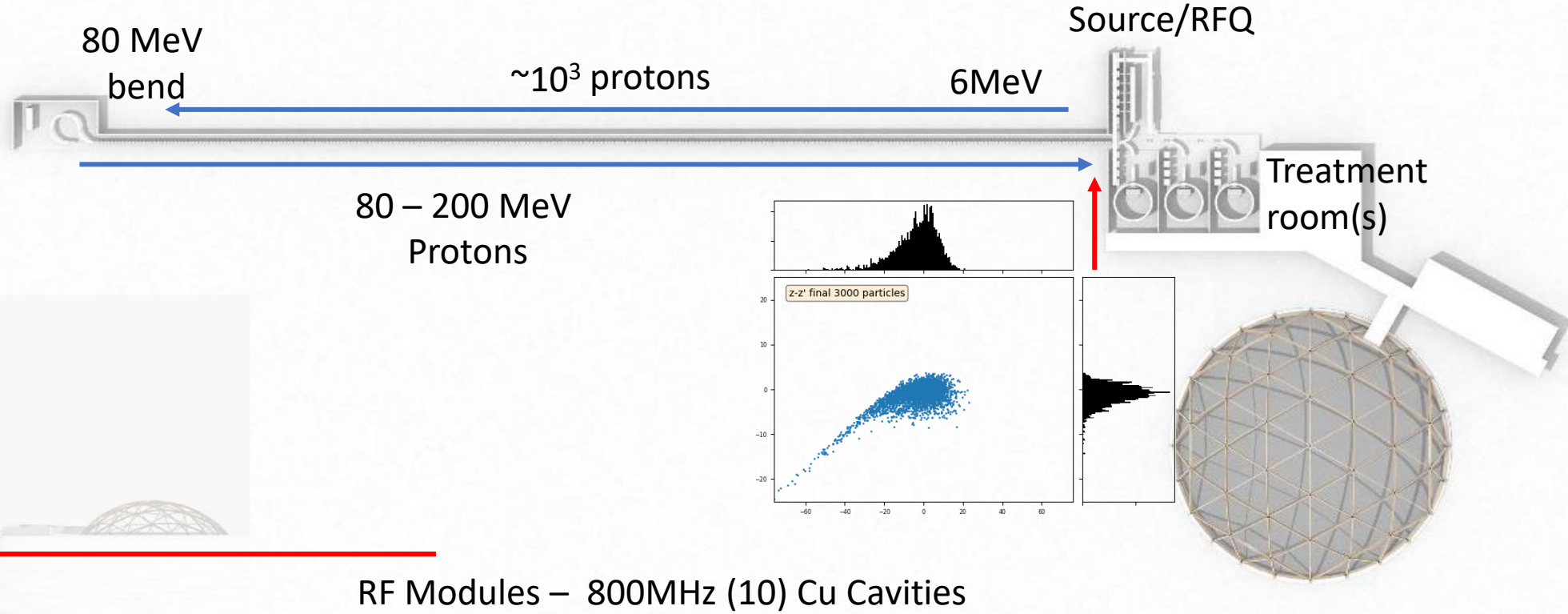
- Reduced time needed between order and operational status.

Leo's Marie Upright Therapy

- Dual-energy diagnostic quality CT at the treatment isocenter will enable real-time adaptive therapy
- Stationary fixed beam delivery system improves reliability, beam parameters and accuracy whilst reducing maintenance costs
- Sophisticated patient positioning system, allowing for imaging and treating of all particle therapy-specific anatomical sites in the upright position



- Reduced shielding needs and construction costs
- Reduced patient setup time and improved comfort



Patient Treatment pricing

Cost of machine + building	£ 25 M (over 20 yrs)	£1.25 M/yr
Cost of maintenance		£ 0.625 M/yr
Staff (4 staff, 2 shifts day, 5 days/week, £60k salary)		£ 0.72 M/yr
1MW x 16 hrs x 250 days		£ 1.6 M/yr
Total Costs	£ 4.2 M/yr	
15 fractions for each patient =	800 patients year	

Cost per patient = £ 5,240

(not including hospital/administrative overheads)

Our Selling proposition

- Low cost per treatment – our machine can treat patients at 1/10th of the current cost per treatment of PT, that is at the same price as the most advanced X-ray treatments (IMRT).
- Fast to install – our modular design means the time from placing an order to operation can be only 12 months.
- Environmentally friendly – Our machine generates almost negligible radiation – avoiding the requirement for large amounts of concrete shielding and radioactive disposal issues. **[10³ Protons per bunch]**
- Smaller footprint (typical - 3000 m² Alceli - 500 m²)



CEO - CTO
Steven Hunt, Accelerator Engineer

Experience:
CERN, Switzerland
PSI, Switzerland
CNAO, Italie
ASP, Australia
ITER, France
SSC, United States of America
ESRF, France
DESY, Deutschland
RAL, United Kingdom



Physics
Dr. Wolf Dieter Klotz, PhD Particle Accelerator

Experience:
Bessy, Deutschland
CERN, Switzerland
SNL, United States of America
ITER, France



Prof. Rebecca Seviour, PhD Physics

20 years expertise in RF & particle accelerator physics and engineering
Huddersfield University, UK
Lancaster University, UK
Lund University, Sweden
ESS, Sweden
UKAEA Culham, UK



Treatment
Dr. Elsa van Garden, PhD Nuclear Physics

Experience:
CERN, Switzerland
PSI, Switzerland
ASP, Australia
Varian, Switzerland



Imaging
Joël Adélie, MBA Health Economics

Twenty-year experience in imaging.
Hospital Public de Paris
Privat Hospital North East de Paris
Paris-Lilas Clinik
Cancer Campus

