



# Optimization of Medical Accelerators

**Welcome**

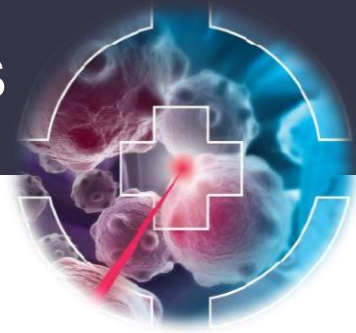
**3<sup>rd</sup> OMA Topical Workshop**  
*Accelerator Design and Diagnostics*

**Samantha Colosimo**  
University of Liverpool / Cockcroft Institute

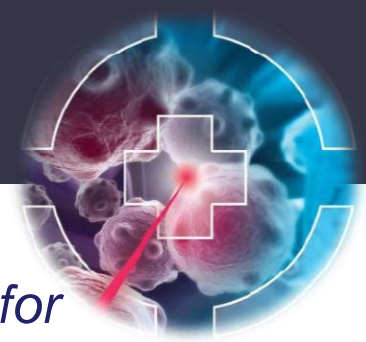




# Optimisation of Medical Accelerators



- Funding from the European Union's Horizon 2020
- **15 Fellows**; project started in Feb 2016
- Gives **industry an important role** in training the next generation of scientists!
- Allows for organizing a number of **events**.
- **Recognized importance** of R&D at interface between physics and life sciences at European level!



*Develop beyond state-of-the-art detector and imaging systems for particle therapy; improve patient treatment and facility performance*

## Work Packages:



- *Facility Design and Optimisation*



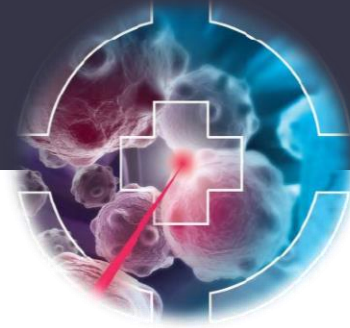
- *Beam Imaging and Diagnostics*



- *Treatment Optimisation*



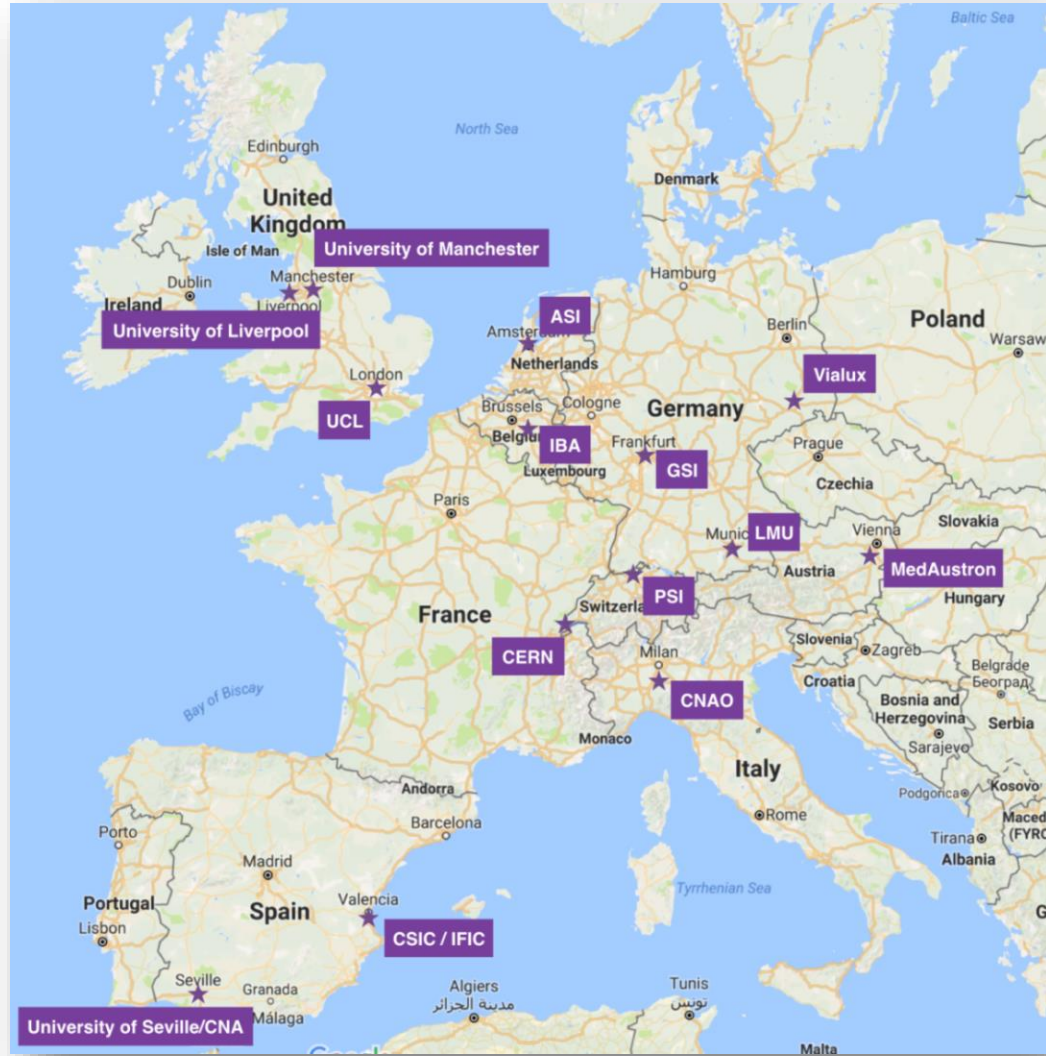
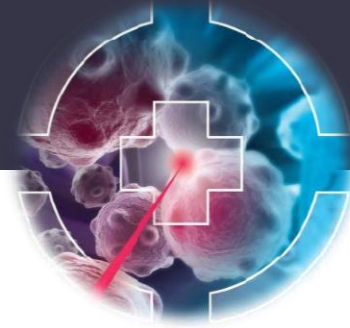
# Beneficiaries





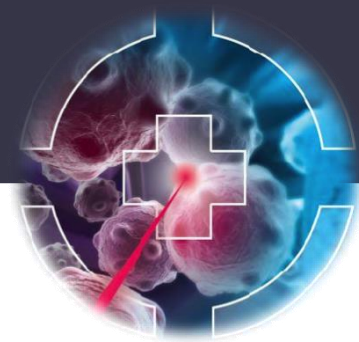


# Overview





# Partner Organizations



The Clatterbridge Cancer Centre **NHS**  
NHS Foundation Trust

The Christie **NHS**  
NHS Foundation Trust

**Fistral**  
Training and Consultancy Ltd.

**h<sub>α</sub>** Holdsworth  
Associates

**COSYLAB**  
CONTROL SYSTEM LABORATORY

**nwc**  
NORTH WEST COAST  
ACADEMIC HEALTH  
SCIENCE NETWORK

**INFN**

**INVENTYA**  
your success, our commitment

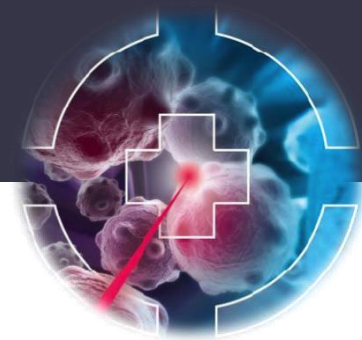
 **Science & Technology  
Facilities Council**

  
Intellectual  
Property  
Office

Lancaster  
University 

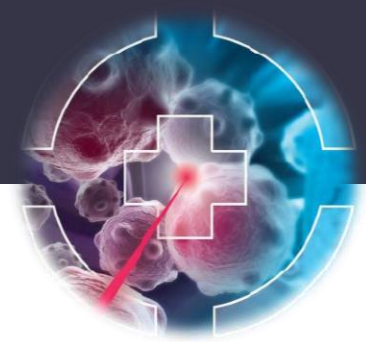


# Growing our Network



- Adjunct Partners





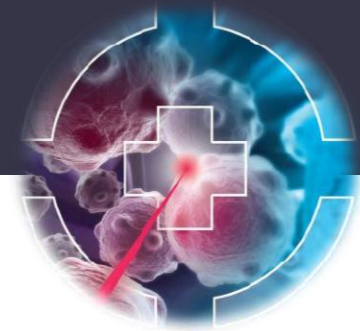
- **International Schools** on research skills, medical accelerators and Monte Carlo simulations;
- **Topical Workshops** on focused research topics;
- **Final Conference and Symposium** to present project results.







# Upcoming OMA Events



- **Advanced School on Medical Accelerators and Particle Therapy**  
MedAustron/TU Vienna, Vienna, 31 March - 5<sup>th</sup> April 2019 **Register Now**
- **Advanced Researcher Skills Workshop,**
  - University of Liverpool, Liverpool, 24-27<sup>th</sup> June 2019
- **Outreach Symposium,**
  - ACC Liverpool, Liverpool, 28 June 2019
- **International Conference,**
  - Seville, October 2019, dates TBC



**Advanced School  
on Medical  
Accelerators and  
Particle Therapy**



1–5 April 2019  
Vienna, Austria



# Project Website



- URL: ([http://www.](http://www.oma-project.eu)) **oma-project.eu**

UNIVERSITY OF LIVERPOOL | OPTIMIZATION OF MEDICAL ACCELERATORS PROJECT

Optimization of Medical Accelerators Project

About us

Network Structure

Projects >

Vacancies

News

Events

Dissemination

Press

Downloads

Links

EU Project T.E.A.M.

Contact

Part of the School of Physical Sciences

Research into the Optimization of Medical Accelerators

OMA's central aim is to assure the best possible cancer care for patients.

[Find out more](#)

## Welcome to OMA

The Optimization of Medical Accelerators (OMA) is the goal of this new network within the Horizon 2020 Marie Skłodowska-Curie European Training Network scheme.

---

### Our Network

We work with leading research centres, universities and industry partners.

[Find out more](#)

### News

OMA Steering Committee meets at GSI

Researcher Careers Workshop in Krakow

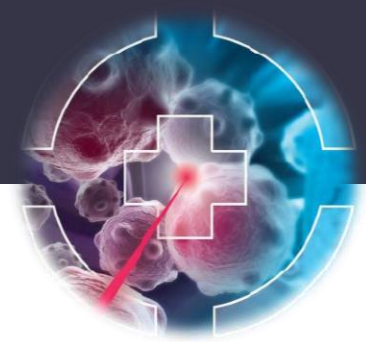
OMA Coordinator announced as Head of Liverpool Physics

QUASAR Group Overrun by School Children

Research presented in the Land of the Morning Calm



# 3rd OMA Topical Workshop: *Accelerator Design and Diagnostics*



## Focus on

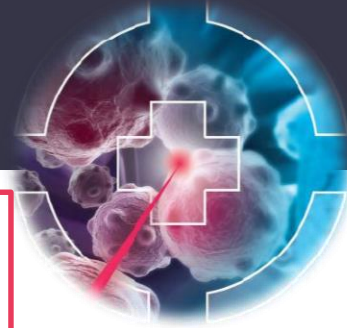
- Efficient integration of beam imaging and diagnostics
- System and monitor design
- Technology upgrades







<b>OVERVIEW</b>	
Tuesday 11/12/18	Wednesday 12/12/18
<b>Room: KBW – Auditorium</b>	<b>Room: KBW – Auditorium</b>
9:00 – 12:30 Talks and Discussion	9:00 – 12:45 Talks and Discussion
12:30 – 14:00 GSI Tour + Group Photo Lunch, Canteen	13:00 – 14:10 Lunch, Canteen
14:00 – 17:00 Talks and Discussion	<b><i>End of Workshop</i></b>
19:30 Conference Dinner <b>(Guesthouse Foyer)</b>	



## CAMPUS MAP



- AR Annex-Radiologie
- AC Annex Container
- BG Betriebsgebäude
- BH Betriebshalle
- BK Büro- & Kantinegebäude
- BR Betriebsräume
- C Container
- EH Experimentierhalle
- EX Neue Experimentierhalle
- EZ Energiezentrale
- GC Green IT Cube
- GH Gästehaus
- GL Gefahstofflager
- GT Green IT Technikgebäude
- KBW Konferenz- und Bürogebäude West
- LBH Leichtbauhalle
- LVH Lager- und Vorfertigungshalle
- LWH Lager- und Werkstatthalle
- MP Wertstoffhof, Müllpresse
- PLH Phelix
- RT Ringtunnel
- SB Südbau
- SE Schnelle Experimente
- SH Stripperhalle
- TES Testinghalle
- TH Targethalle
- TR Transferhalle
- TU Tunnel
- TVH Tankverkupferungshalle
- VR Versorgungsräume

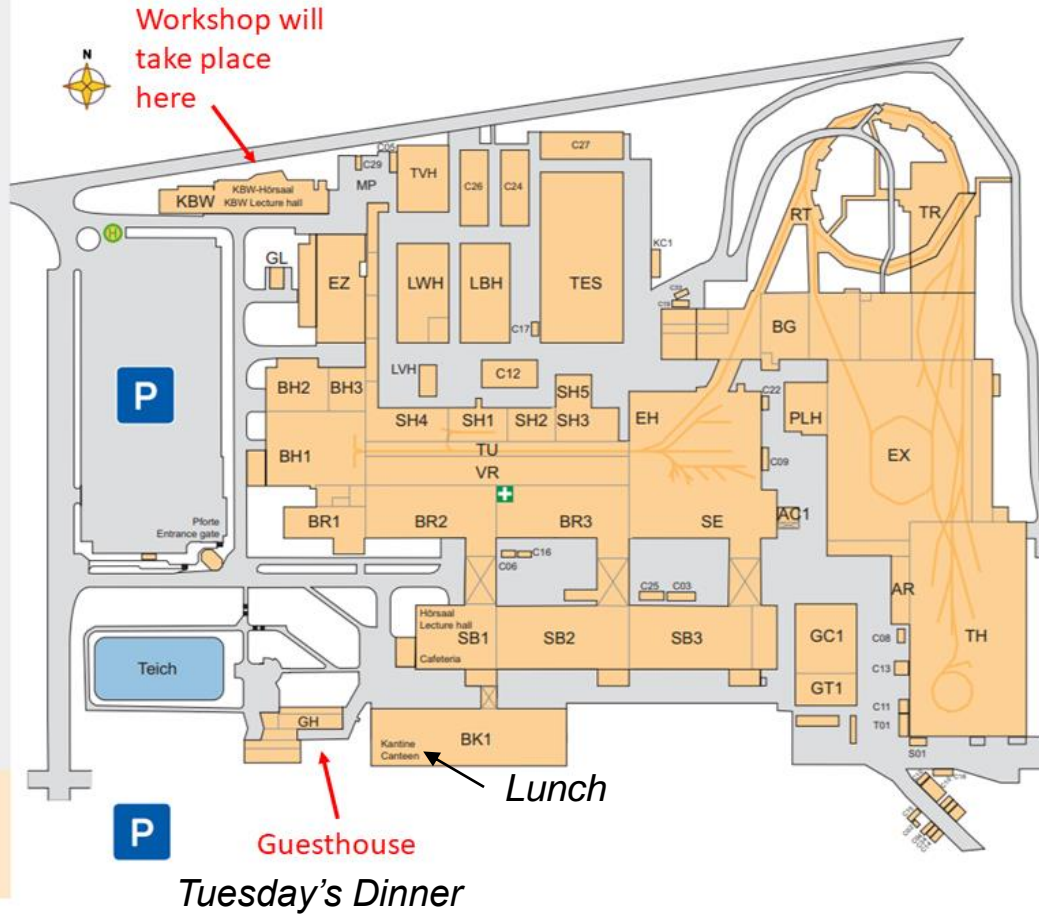
Sanitätsraum/First Aid Ward

Im Notfall bitte die Pforte kontaktieren.  
In case of emergency, please contact the entrance gate.  
Telefon/Phone: +49 6159 71 2210

Ortsbezeichnung/Room numbering:

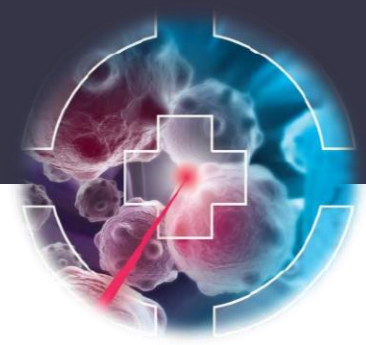
Beispiel/Example: SB2.4.123

SB2. Gebäude/Building  
4. Ebene/Level  
123 Raumnummer/Room number





# Practical information



- Coffee breaks: KBW Auditorium
- Lunch: *Canteen*
- Local support:
  - Michelle Lis Tel: +49 17258 20225, e-mail: [m.lis@gsi.de](mailto:m.lis@gsi.de)



# Optimization of Medical Accelerators

**Welcome**

**3<sup>rd</sup> OMA Topical Workshop**  
*Accelerator Design and Diagnostics*

**Samantha Colosimo**  
University of Liverpool / Cockcroft Institute

