

# ORBITAL-ITN

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# WHAT IS THE ORBITAL - ITN

The **Ocular Research by Integrated Training and Learning (ORBITAL)** Project focuses on developing innovative technologies to treat diseases of the back of the eye, which are some of the main causes of blindness and sight loss in patients over 50 in Europe.

- ▶ 15 Researchers in 11 Countries
- ▶ Partners and Beneficiaries in EU, US, UK, Canada
- ▶ Mixture of Academia, Clinician, Patient Support Organizations, and Industry
- ▶ **€4 million** in funding, with over **€1 million** in Ireland/NI at WIT, UCD, and QUB
- ▶ At the halfway point- funded in 2019, 6 month extension, will end Feb 2024



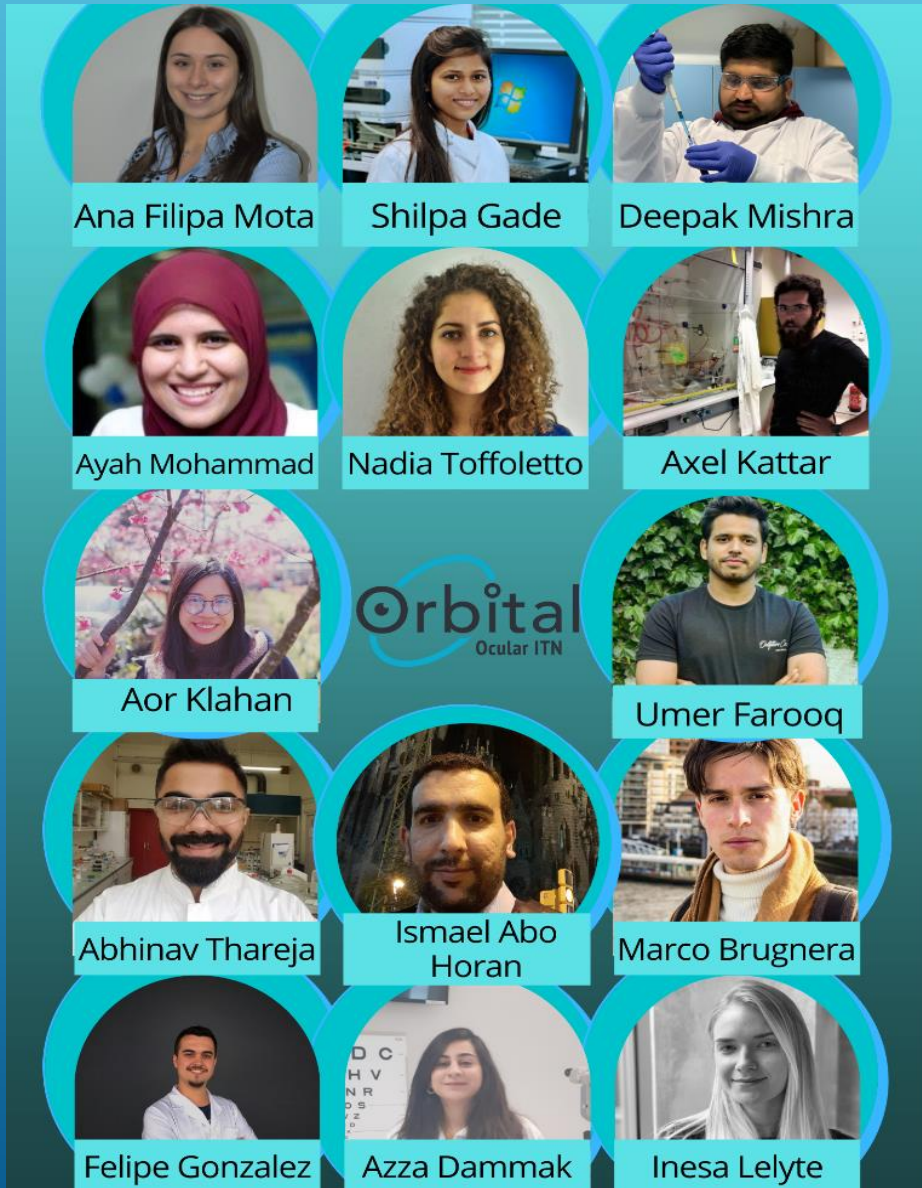
# SCIENTIFIC WORK PACKAGES

- ▶ **WP3 - Enhanced Medical Devices**
- ▶ **WP4 - Innovative Nanoformulations**
- ▶ **WP5 – Ocular Models**





# ORBITAL RESEARCHERS



- ORBITAL ESRs are part of the consortium
  - Each has their own “home research groups”
  - Creates a larger network
- Researchers from ESRs home research groups can attend ORBITAL Training **(often for free!)**
- Expanded networks
  - ESRs are fully connected to these other research groups
  - Improving networking and research skills alike

# ORBITAL TRAINING – OPEN AND ONLINE



- Due to COVID19 and travel restrictions, ORBITAL pivoted to online training
- This included creating a Youtube Channel where many of our sessions are still available



# JOURNAL CLUB AND OPEN SEMINAR SERIES

The collage displays 15 individual seminar posters. Each poster includes the Orbital logo, a speaker's headshot, their name and affiliation, the seminar title, and the date and time. The topics covered include:

- Protecting Retinal Ganglion Cells from Death in Models of Eye Disease** (Thursday, June 4, 2020, 3 PM BST / GMT+1) by Zubair Ahmed, PhD.
- Ocular Drug Delivery: Understanding Challenges and Developing Novel Solutions** (Thursday, August 27, 2020, 3 PM BST / GMT+1) by Dr. Raj Thakur, Queen's University Belfast.
- The Role of Oxidative Stress in Primary Open Angle Glaucoma** (Thursday, October 3, 2020, 2pm GMT) by Evan B. Stubbs, Jr., Ph.D., Chair, Research and Development Committee, Edward Kline Jr. VA & James A. Lovell FND.
- Louise Grubb - Serial Entrepreneur: Bringing Innovations to Reality, My Experience** (Thursday, April 29, 2021, 2pm GMT+1) by Louise Grubb, CEO, TriluxVet.
- Biodegradable Microspheres for Intraocular Drug Delivery** (Thursday, Sep 17, 2020, 2 PM BST / GMT+1) by Prof. Susan Hewlett, University of Birmingham.
- Anti-Scarring Therapies for Ocular Fibrosis** (Thursday, February 11, 2021, 2pm GMT) by Professor Ann Logan, University of Birmingham.
- Ex Vivo Ocular Models** (Thursday, May 27, 2021, 2pm GMT+1) by Dr. Silvia Pereira, Assistant Professor at the Food and Drug Department, University of Porto.
- Developing Novel Molecules for Dry Eye Disease** (Thursday, June 25, 2020, 3 PM BST / GMT+1) by Allison Karmali, PhD, University of Birmingham.
- Academic Integrity: What Does it Mean and Why Should We Care?** (Thursday, Oct 8, 2020, 3 PM BST / GMT+1) by Dr. Teresa Thomas, University of Birmingham.
- Adventures in Discovery of Therapeutics for Blindness: Can We Deliver?** (Thursday, March 11, 2021, 2pm GMT) by Professor Breandán Kennedy, School of Biomedical and Biomolecular Sciences, University College Dublin, Conway Institute.
- The Out's and In's of Ocular Drug Delivery** (Thursday, June 24, 2021, 2pm GMT+1) by Clive G. Wilson, Graduate Institute of Pharmacy and Biomedical Sciences, Loyola University.
- Medicated Contact Lenses** (Thursday, August 6, 2020, 3 PM BST / GMT+1) by Gargi Patel-Bhatnagar, PhD, University of Birmingham.
- Ophthalmic Drug Delivery by Contact Lenses** (Thursday, November 19, 2020, 2pm GMT) by Professor Anuj Chauhan, Colorado School of Mines.



Dr. Simon Kaja



- Free and Open to public – renowned scientists in the field share their expertise
- Monthly sessions – both targeting hard science and “softer” skills (innovation, technology transfer), looking to ensure researchers have well-rounded and diverse training

# SCIENTIFIC WORKSHOPS

- ▶ **Fabrication & characterisation of microneedles for DD** – Hosted by QUB
- ▶ **Webinar “Animal Models for Ocular Disorders”** Hosted by EXP
- ▶ **Modelling ophthalmic drug delivery** - Hosted by CSM
- ▶ **Polymer Reactions and Polymer Production** – Available at IST
- ▶ **Seminar on clinical challenges in ophthalmology** – Hosted by UoB
- ▶ **In Vitro Ocular Test Methods: HET-CAM and BCOP** – run by ORBITAL ESRs Axel Kattar and Ana Filipa Mota
- ▶ **“Imaging Modalities in Ophthalmology & Experimental Ophthalmology”** Hosted by EXP
- ▶ **Ex-vivo models to study drug permeation & retention in ocular tissues** – to hosted at UNIPR with NAV (June 2022)

## ESRS IN THE LAB

When we can #LabTogether, we can #LearnTogether  
#BestPractices #Ex Vivo #HandsOn





# FOCUS ON PATIENT ENGAGEMENT

- ▶ Kick-off meeting
  - ▶ Training from clinicians and patient advocacy groups
- ▶ Month 18 meeting
  - ▶ Talks from patients
- ▶ Patient as the teacher workshop – World Café event, Lisbon, March '22
  - ▶ Seminars and lectures on Patient Engagement in Science





# the PATIENT as the TEACHER

HELP COMBAT LONELINESS  
and CREATE COMMUNITY

"it is MOST IMPORTANT  
we REMEMBER the  
whole PERSON"

PEOPLE with DISABILITIES...

...DREAMS and HOPES  
and DESIRES

...FEARS and  
ANXIETIES

"it will TAKE all  
of US TOGETHER  
those with BLINDNESS and  
SIGHT LOSS and those WITHOUT  
to MAKE this WORLD  
more WELCOME  
to US all"

## ROUND 3: WHAT CAN BE DONE TO INVOLVE MORE PATIENTS in PRE-CLINICAL RESEARCH?

LEAFLETS  
PODCAST  
VIDEO

EDUCATE  
those WITH VISUAL  
IMPAIRMENT and  
WITHOUT

SHARE the  
RESULTS  
of PRE-CLINICAL  
RESEARCH with  
PATIENTS

use  
SIMPLE and  
ACCESSIBLE  
LANGUAGE

WORKSHOPS

create  
KNOWLEDGE  
SHARING SPACES

BRING PATIENTS TO  
UNIVERSITY  
OPEN DAYS

INVOLVE  
FAMILIES

ESPECIALLY  
in the CONTEXT  
of HEREDITARY  
EYE DISEASE

that  
NON-SCIENTISTS  
UNDERSTAND

LEAVING GRATEFUL and FILLED with HOPE  
...to BE CONTINUED...

LUNCH!

Non-formal  
INCENTIVES to MEET  
and GET INVOLVED

BEYOND  
TREATMENT

"LOOKING LIKE  
YOU'RE GIVING  
UP"

CONFRONTATIONAL,  
ACCEPTING  
the DISEASE

LOW VISION  
CONSULTATIONS  
forgotten or avoided

CONVERSATIONS  
about the  
CONDITION  
CONTEXT and  
OUTLOOK

POTENTIALLY  
PROMOTE  
INVOLVEMENT  
in PRE-CLINICAL  
RESEARCH here

COMBAT  
LONELINESS

it's all about the  
CONNECTIONS and  
RELATIONSHIPS that  
ALLOW for TRUST

BUILDING and FOSTERING

BUILD CONNECTIONS  
through INFORMAL  
MEETINGS

CLINICIANS as  
BRIDGE BUILDERS

might KNOW  
WHO COULD GET  
INVOLVED

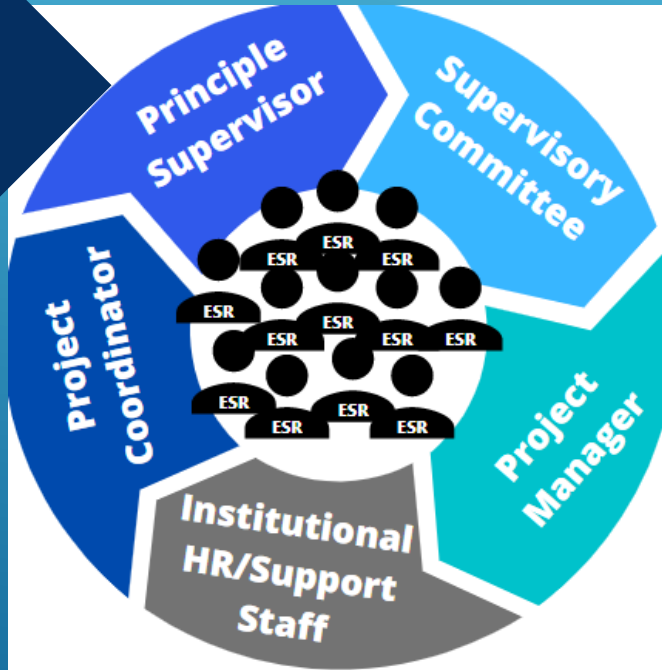
they have  
the  
PATIENT  
CONTACT

PATIENT-CLINICIAN  
TRUST to facilitate  
INVOLVEMENT in  
RESEARCH

# MANAGING AN ITN (OR DN UNDER HE)

There are two types of management happening within the Project – ESR Supervision and Training, and overall Project Implementation and Management

ESR Training  
and  
Development

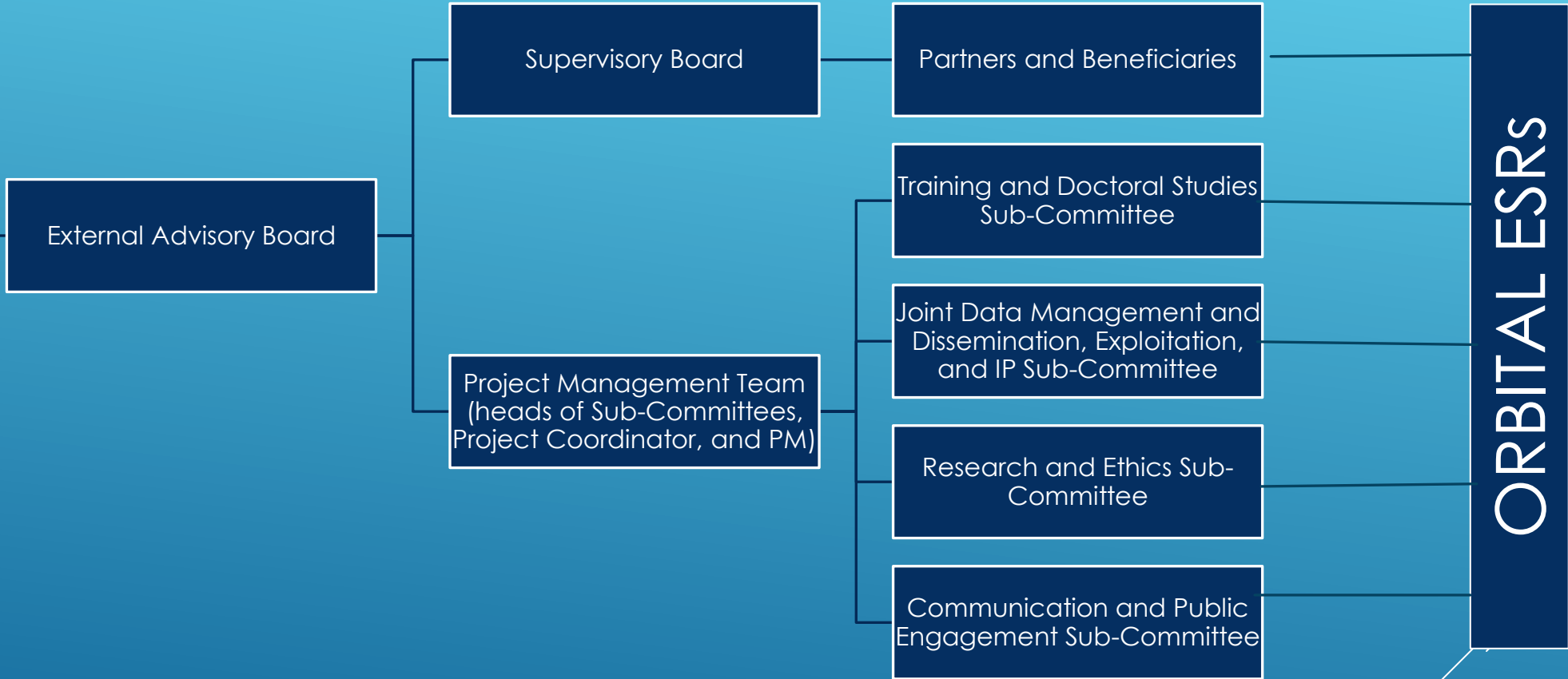


Overall Project  
Management





ORBITAL ESRs



# PROJECT MANAGEMENT - BUILD CONNECTIONS

- ▶ Take the time to **find and create new opportunities** that weren't described in the GA – (special editions of publications, opportunities to collaborate with “sister” ITNs, join the **MSCA PM Group**)
  - ▶ Resources: HRB, PM<sup>2</sup> Alliance -The International Association of PM<sup>2</sup> Practitioners ([pm2alliance.eu](http://pm2alliance.eu)) – and many more!
- ▶ Learn from experience – if you expect the project to be agile, **you have to be agile too!**
- ▶ **Have a strong PM Team**



## ORBITAL Project Management Team



			
Dr. Laurence Fitzhenry, PC	Tess Ames, Project Manager, WIT	Prof. Dr. Raj Thakur, Data Management, QUB	Prof. Dr. Zubair Ahmed Research and Ethics, UoB
			
Prof Breandán Kennedy, Communication and Public Engagement, UCD	Prof Rocío Herrero Vanrell, Training and Doctoral Studies, UCM	Paolo Gasco, Dissemination, IP, and Exploitation, NAV	



# ORBITAL IN PUBLIC – COMMUNICATION AND DISSEMINATION

Media Type	Hits Y1	Total Hits/Impressions to date:
Website	7,234	21,650
Youtube	2,800	4,600
Twitter	74,388	125,484
LinkedIn	404	650
Facebook	648	3,696
Instagram	32	701
SoundCloud	277	885

- **Utilize targeted social media – different outlets for different audiences**
  - Synthesized and cohesive Communication and Dissemination Plan were critical to this
- **Update content regularly**
  - ESRs create content
  - Utilize partner and Beneficiary news to keep website attractive and active
- **Share with other ITNs and EU Projects**
  - Collaborate with sister projects or similar consortia. Reach beyond your network

# Opportunity Bank – Trainings, Courses, and Outreach Activities!

Resources and B Practices

☐ ETHICS Train Opportunities Standards

☐ Ocular Mode Training with Anuj Chauha

☐ ORBITAL Mic Training

☐ Partner and Logos

☒ Useful Docu Templates

Sub-Committee Documents

☐ Communicat Public Engag Committee E

☐ Disseminatio Exploitation Committee E

☐ Research and Documents

☐ Training and Studies Com Documents

☐ Supervisory Boa Documents and

Useful Documents and Templates

You can find upcoming Opportunities for trainings, courses, dissemination opportunities, and Outreach Activities below, or download the file, [here](#):

	A
25	Ex-Vlvo models to study drug pereamtion and retention in c
26	<a href="#">How to Present your Research</a>
27	<a href="#">Responsible Research Webinar Series</a>
28	<a href="#">RETINA 2021 -</a>
29	ORBITAL Year 2 Meeting
30	The Patient as the Teacher Workshop
31	<a href="#">Retina International Wrold Congress in Iceland</a>
32	

Conferences and Workshops

ES!

use the menu below to

DN

found



# PLANNING AND IMPLEMENTATION TIPS

- ▶ Keep training plan **flexible and agile** – what can be remote if it needs to be?
- ▶ **Recruit EARLY** – as early as possible – utilize a streamlined recruitment approach to ensure FAIR and OPEN recruitment standards
- ▶ **Communicate regularly** – and include communication with your Project Officer!
- ▶ Collect information from ESRs regularly (monthly reports on activities conducted in the project, training undertaken, etc) – **live secondment trackers and activity trackers help for reporting!** Offer to meet regularly with them.

# ORBITAL PUBLICATIONS AND RESEARCH



A special issue of *Pharmaceutics* (ISSN 1999-4923). This special issue belongs to the section "Drug Delivery and

## Share This Special Issue



## Special Issue Editors

**Prof. Dr. Anuj Chauhan** [E-Mail](#) [Website](#)

*Guest Editor*

Colorado School of Mines, Golden, CO, USA

**Interests:** drug delivery; transport; interfacial phenomena

**Dr. Laurence Fitzhenry** [E-Mail](#) [Website](#) [SciProfiles](#)

*Guest Editor*

Ocular Therapeutics Research Group, Pharmaceutical and Molecular Biotechnology Research Centre (PMBRC), Department of Science, Waterford Institute of Technology, Waterford, Ireland

**Interests:** drug delivery; ophthalmic; ocular drug delivery; nanomaterials; controlled release; biomaterials

[Special Issues, Collections and Topics in MDPI journals](#)

**Dr. Ana Paula Serro** [E-Mail](#) [Website](#) [SciProfiles](#)

*Guest Editor*

Centro de Química Estrutural, Institute of Molecular Sciences, Instituto Superior Técnico, Universidade de Lisboa, 1049001 Lisboa, Portugal

**Interests:** controlled drug release; biomaterials characterization; biotribology; adsorption of biomolecules onto biomaterials; sterilization

[Special Issues, Collections and Topics in MDPI journals](#)



31 July 2022



Thank you for your time!

Questions?

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- ▶ [Tess.Ames@setu.ie](mailto:Tess.Ames@setu.ie)