



ICAT
Irish Clinical Academic Training

Prospectus



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine





ICAT
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Irish Clinical Academic Training Programme (ICAT-2)

www.ICATprogramme.org

A unique all-Ireland cross-institutional PhD programme for clinician scientists in human, veterinary and dental medicine, integrated with the health services and university clinical research centres, which will prepare graduates for exciting and rewarding careers as clinician scientists.

The ICAT-2 Programme is an all-Ireland partnership comprising six universities (National University of Ireland Galway, Trinity College Dublin, University College Dublin, Queen's University Belfast, RCSI University of Medicine and Health Sciences and University College Cork), their respective Schools of Medicine, Dentistry and Veterinary Medicine, the Health Research Board (HRB), the clinical training authorities North and South, Health Service Executive - National Doctors Training and Planning (HSE-NDTP) in the Republic of Ireland (ROI), the Northern Ireland (NI) Health and Social Care Research & Development Division (HSC R&D) in partnership with the Northern Ireland Medical and Dental Training Agency (NIMDTA), the Department of Agriculture, Food and the Marine (DAFM) and the College of Anaesthesiologists of Ireland (CAI).

ICAT is founded on the principles of providing integrated, fellow-centric clinical academic training to postgraduate clinical trainees **across all disciplines of human medicine, veterinary medicine and dentistry** through a programme which integrates PhD research training of the highest quality with higher specialist training. It is ICAT-2's ambition to train 42 fellows through five intakes and commit to supporting each fellow throughout their entire career pathway. Through combined partnership, ICAT offers infrastructure, experience, and expertise with matched financial support to provide the broadest possible range of research and training opportunities.



The overarching shared vision for ICAT-2 is to train world-class clinical academic leaders, across the island of Ireland to:

- develop a diverse, vibrant, globally competitive clinical academic workforce in Ireland.
- meet the need for academic leadership by health and veterinary professionals.
- prioritise the role for clinician and veterinary scientists in understanding disease through research and innovation.
- create flexible career structures for clinical and veterinary academic researchers.
- increase the output of high-impact, high-quality, strategically relevant research aligned with structured academic career pathways.

Central to our vision is to build an all-inclusive, diverse, and broad-ranging programme which develops a lasting and integrated network of academics across the island and internationally. The need for disruptive thinking and cross-pollination of ideas between our fellows, mentors and supervisors requires that **we recruit broadly from all clinical and veterinary**

disciplines to promote wide-ranging sharing of ideas and interests. We especially encourage and support applications from clinical and veterinary **specialties and disciplines heretofore under-represented in clinical academia.**

Health related research offers the opportunity for health professionals across all disciplines to advance the care of their patients (be they human or animal) drawing on the best cutting-edge technology and methodologies to address clinically relevant areas of research need. Supporting and developing post-graduate fellows to undertake careers in clinical academia provides for a future-ready workforce who will meet the challenges of healthcare delivery by exploiting the state-of-the-art in research advances, while also innovating to overcome the challenges of global adversity and under-resource. ICAT-2 broadens our focus to strategically align research which incorporates the principles of *One Health* (the study of how humans, animals and their shared environment interact in the context of health and disease). Therefore, the promise of a fruitful and well supported research career provides an exciting prospect for our clinical, veterinary, and academic leaders of the future.



Features of the ICAT-2 Programme

*Research within ICAT-2 is conducted within a well-supported, mentored and highly networked environment which is **collaborative in focus** and which **mandates a cross-disciplinary, cross-institutional approach for all fellows**. Each year over five intakes, fellows with a passion for research, problem-solving and addressing unmet need across the health sciences will be recruited to the ICAT-2 programme.*

Each fellow will enter into:

- (i) a preparatory pre-PhD year, fully accredited for clinical training (where applicable)
- (ii) followed by a fully funded 3-year PhD,
- (iii) post-PhD, medical and dental alumni return to complete higher specialist training and veterinary alumni are encouraged to pursue postdoctoral research, in an environment supportive of continued academic pursuit.

We have selected the best supervisors from research-intensive universities across a broad range of scientific, clinical and engineering fields, that collectively demonstrate research excellence. Ireland has a well-developed national infrastructure to support biomedical and translational research and has invested in multi-institutional collaborative research activities. A central principle of the ICAT-2 Programme is that funding follows the trainee and their chosen PhD, making this a unified programme focused on training well-rounded clinician and veterinary scientists.

It is important that fellows have not chosen a supervisor or project at the time of recruitment to ICAT-2. Essential to fellow-development and the training journey of each ICAT-2 fellow is the opportunity provided during the first year to develop their research interest into a knowledge-gap-focused research question and PhD proposal, with the support of an advanced mentorship structure. Academic mentors work with each fellow to choose a team of **cross-institutional, cross-disciplinary supervisors** which exploits the full opportunity provided by the ICAT-2 network of six universities and >250 supervisors across the areas of science, engineering, health disciplines, veterinary medicine, oral health & social sciences. Each ICAT fellow must choose a **cross-disciplinary supervisory structure which spans at least two Irish universities.** International collaborations are encouraged and supported through funded opportunities within the programme; fellows can avail of a research elective in an international centre of excellence for up to 6 months.

The execution of high-quality research in ICAT-2 is embedded within a purpose-designed research-training and networking structure which incorporates an annual summer school, annual retreat and five study days. Each provides training in research skills and analysis as well as exposure to cutting-edge research techniques and is delivered within a social, supportive environment. **Our training programmes challenge our fellows to take a disruptive approach to answering their research questions which press boundaries in a future-ready manner.** Through these events, ICAT-2 fellows network with each other, with fellows from other PhD programmes in Ireland, with supervisors, and with guest speakers and experts of international renown.

The ICAT Programme arises from the collaboration of established structures for clinical and veterinary specialty and academic training in Ireland, which provides a strong platform for integrated clinician scientist training.

This programme provides a linked structure between:

1. The postgraduate medical and dental training bodies across the island of Ireland, structured around basic specialist training (BST) and higher specialist training (HST) and coordinated through the Forum of Irish Postgraduate Medical Training

Bodies (ROI) and the Northern Ireland Medical and Dental Training Agency.

2. The Health Service Executive – National Doctors Training & Planning (ROI) and Health and Social Care Research and Development Division (NI), which work with the training bodies to provide accredited training positions.
3. The Dental Schools and Dental Council of Ireland.
4. The six participating academic institutions, with strong established international reputations, oversee research and academic training.
5. The Department of Agriculture, Food and the Marine, linking with the School of Veterinary Medicine at UCD.

ICAT-2 fellows will be offered the following:

- Choice of research opportunities with internationally renowned investigators, with a strong emphasis placed on achieving the best structure for cross-institutional and multi-disciplinary research, as mandated by the programme.
- A comprehensive research/training structure including study days within the participating universities, an annual summer school and the annual ICAT Retreat.
- Funding: an annual salary based on level of training and matched to their equivalent clinical scale, generous research expenses, training allowance and PhD fees (EU rate).
- Opportunity to apply for additional funding for an international placement (between 2 weeks – six months) at an international centre of excellence of your choice.
- Mentorship during the fellowship with a focus on supporting fellows to choose their supervisory structure, write their PhD proposal and which helps them through key transition points (such as the transition from PhD to follow-on clinical and research opportunities).
- Longer-term post-PhD support, training and advocacy from the ICAT Alumnus Committee.
- Opportunity to input into the ICAT-2 Programme structure by representing ICAT-2 fellows and alumni in the ICAT-2 Steering Committee, Equality, Diversity and Inclusion Working Group, Alumnus Committee, and the Forum Physician Health and Wellbeing Group (one fellow/alumnus nominated to each committee).



Programme Structure

Year 1

Clinical (80%) / Academic (20%)
(clinical/academic split may vary for some specialties)

During the first year, medical and dental fellows remain in their assigned clinical training position (or university-delivered specialist dental training programme) and have 20% of their time protected for academic activities. Fellows will have honorary academic status at the host institution for this year. NI Fellows will have academic status at QUB and will be funded jointly by NIMDTA/HSC R&D. Year one is fully accredited for clinical training. For veterinary fellows, year one will allow completion of the final step in specialisation or further development of their clinical speciality. Fellows are provided with a clinical mentor and trainer by the relevant postgraduate training body; an academic mentor is assigned by the ICAT-2 Executive Team, and their local ICAT-2 Directors are their local points of contact. **As fellows are assimilated into the programme, they may identify and request a new academic mentor if they wish.**

ICAT-2 fellows begin year 1 with a collegial induction event during which fellows and ICAT-2 directors and programme managers become acquainted. At this event, the core principles of the programme are shared, and the ICAT-2 fellows get their first opportunity to interact as a group and with the larger research community in ROI/NI. The ICAT-2 fellows are encouraged at this point to begin focussing their research interests and communicating with potential PhD supervisors (with input from their mentor) and writing their PhD proposal.

During year 1 ICAT Fellows can experience academic environments through dedicated, protected research time and by taking educational modules offered by the partner institutions and further afield. ICAT fellows are supported throughout this year to make their final choice of a cross-disciplinary supervisory team (comprising a primary PhD supervisor and two co-supervisors from across more than one partner university). With the assistance of their academic mentor and the supervisory structure, each fellow is supported to submit a well-written, thoroughly planned research proposal, including a research budget that outlines their three-year PhD studies. Submitted research proposals undergo rigorous internal and then external peer-review and each ICAT fellow will be required to defend the proposal at interview prior to approval of the PhD project and funding release for years 2-4 of the ICAT-2 Programme.

ICAT-2 fellows are expected to develop knowledge-gap focussed research questions, using a methodology and research design that must be truly cross-disciplinary and which must use the available resource of the broader ICAT network. ICAT encourages research that is strategically aligned with national and international research and clinical care programmes. ICAT-2 fellows should aim to pursue ambitious research with state-of-the-art approaches.



Year 2-4

Joint Clinical (10%) / Academic (90%)
(clinical/academic split may vary for some specialties)

From years 2 – 4, ICAT-2 Fellows are fully immersed in their research activity and pursue a PhD under the guidance of their chosen supervisory team. Fellows attend a residential summer school at the start of year 2, attending training sessions, building relationships with their cohort and with fellows from other PhD programmes.

An additional but minimal clinical component is incorporated into the PhD years. For medical and dental fellows, with prospective approval of the relevant training body, part of the three years of the PhD may be accredited towards clinical training. For veterinary fellows, the clinical component assists in maintaining their clinical specialty. All fellows will develop an Individualised Training Plan (ITP) towards the end of year 1. This is formulated with the assistance of the clinical and academic mentors and where relevant is agreed by the fellow's training authority. The ITP serves as a roadmap which will outline each fellow's clinical training journey (or maintenance of clinical skills for veterinary fellows) during their PhD and up to the end of their specialist training. It will be reviewed on a yearly basis at their annual clinical training assessment. Additional support and advice is available from clinical and academic mentors when deciding upon clinical training/ experience and accreditation during these years. **Importantly, the clinical component must not disrupt research activity and academic training during the PhD years.**

ICAT-2 fellows undertake training modules across a broad range of research topics during the ICAT programme. While many of these modules will be focused on their chosen research area, it is essential that all fellows are exposed to training in techniques, skills and methodologies which may not immediately be apparent as relevant to their research question. It is essential to provide this broad spectrum of training to encourage fellows to think laterally and disruptively when problem-solving. Training and modules undertaken will also serve to meet structured training requirements for PhD studies within their chosen university. Fellows are also expected during this period to present their research findings locally, nationally and internationally. They are expected to publish in peer-reviewed international journals and are required to incorporate a structured plan for public and patient involvement (PPI) in their research.

Throughout these years the ICAT fellows maintain the collegial and supportive atmosphere of the programme through programme events (study days, summer school and ICAT Retreat).

Throughout the PhD years, fellows must also undertake at least two structured outreach activities which serve underprivileged societies, and which embrace the principles of inclusion health. Each fellow and their supervisors must also submit an annual report outlining their progress, outputs and feedback during the PhD years of the programme.



Programme Structure

Year 5-7

Joint Clinical (80%) / Academic (20%)

(number of years and clinical/academic split will be dependent on specialty and on stage of training)

ICAT-2 medical and dental fellows will return to clinical training positions under the guidance of their clinical and academic mentors and complete their specialist training within the requirements of their specialist training committee/deanery.

Support is given to candidates during this phase of the programme in taking steps that re-integrate them into a clinical environment such that they can complete higher specialist training if required. Early in this stage the PhD is written up and each ICAT Fellow will take their viva voce examination. Equal importance is attached at this critical career stage to continued participation in research for each fellow. In order to facilitate this transitional phase of the programme, ICAT-2 will work with the medical and dental fellows and their clinical trainers to protect 20% of their overall time for academic activity. All fellows at this stage are encouraged and supported to seek post-PhD funding and postdoctoral funding through academic clinical lectureship (ACL) opportunities, as well as applying for postdoctoral fellowship programmes, for example those supported by the HRB.

Focused training and career support is provided to ICAT-2 fellows throughout the alumnus phase of the programme to develop each fellow as an independent researcher and future principal investigator. This training is heavily focussed on how best to choose appropriate research funding opportunities, advice on how best to structure research grant applications, and how to establish independence by availing of the best pathway to a successful academic career. ICAT-2 Fellows are also given opportunity for continued network building, collaboration, and constant building and renewal of the necessary cross-disciplinary links to build a successful future research infrastructure. ICAT-2 fellows are expected to continue disseminating research findings from their PhD, as well as being supported to develop new research concepts and outputs, while working towards postdoctoral fellowships and sub-specialty training.

The Alumnus Period of training is critical for the success of ICAT-2 fellows as future clinical and veterinary science academic leaders, and support is provided by the ICAT Alumnus Committee during this period and as alumni progress.



ICAT
The Clinical Academy



Training

Year 1 fellows:

- **Induction event:** at this event, fellows will meet their cohort, other ICAT fellows and alumni. ICAT Programme directors and external speakers will give presentations and workshops on developing a research concept, building a PhD proposal, skills gap analysis, and the PhD development and review process during year 1.

All fellows:

- **Regular Study Days** within each of the partner institutions. These events are organised by the ICAT Fellows and include research presentations and workshops. The study days are delivered as in-person, online and hybrid events.
- **Regular meetings** with clinical and academic mentors.
- **Educational modules**, chosen by ICAT Fellows to suit their needs, offered by all partner institutions and other selected programmes.
- **Annual ICAT Retreat:** This immersive two-day event is attended by all fellows and directors and is the highlight of the academic calendar. There are presentations by ICAT Fellows, opportunities to meet with national and international Independent Advisory Board Members, and keynote presentations by leading international academics.
- **Summer School:** This immersive week-long course will be delivered annually and is aimed at the year

2-4 (PhD year) fellows. The programme will deliver formal teaching in a range of topics including core research methods, dissemination, scientific writing, and public and patient involvement. There will also be a focus on fellow wellbeing, networking, outreach activities and inclusion medicine during this event.

- Fellows will participate in **annual reviews of clinical training and competencies** as required by the relevant postgraduate training body as well as structured reviews of their research progress as required by their host academic institution.
- During their PhD, fellows will be expected to **attend national and international conferences to build their networks and disseminate their research.**
- **International placements:** Fellows have the opportunity to apply for funding for an international placement of up to six months in a centre of excellence of their choosing. The placement should benefit their PhD research as well as their personal development as clinician and veterinary scientists by offering training/expertise/facilities not available in Ireland, and fellows will be expected to disseminate their training and experiences on their return.
- Fellows will receive a **training budget** to fund specific training that may not be offered by the partner institutions, or for example, to visit a collaborator for on-site training in a specific technique/methodology.



Supervisors

ICAT has a panel of more than 250 supervisors, selected from the participating universities/institutions for their research excellence. This list is updated on a yearly basis. More information on individual supervisors is available, searchable by postgraduate area, institution and other key words. Please go to www.ICATprogramme.org to explore further. The choice of supervisors and co-supervisors is key to success for each ICAT fellow. **It is important that fellows do not enter the ICAT programme with an already firm arrangement for their future supervisors and co-supervisors.**

Fellows must have a structure of supervisors and co-supervisors spanning at least two participant ICAT universities. Supervisors must be cross-disciplinary, and fellows are requested to be disruptive in their choice of supervisor i.e. fellows are asked to break down the tradition of choosing a primary supervisor from within their own clinical specialty. Rather, support and mentorship will be given to each fellow during their first year to choose the supervisor and co-supervisors whom most appropriate to their research area of interest and research question.



ICAT Intake Procedures

The ICAT-2 programme recruits fellows on a once-yearly basis through a competitive recruitment process, which focusses on fair recruitment processes including (i) gender and identity blinding of all applications from the reviewer panel, (ii) monitoring by the equality, diversity and inclusion group of ICAT, (iii) presence of at least one international extern and (iv) observation by a nominated fellow/alumnus. Additionally, career trajectory and periods of leave which may have impacted career trajectory will be considered by the reviewers and interview panel.

Applications usually open in September and close in late October (timings may vary but will be advertised on the ICAT website). All applications are peer-reviewed prior to shortlisting. Shortlisted candidates are invited to interview and are interviewed by a national and international panel chosen from the ICAT Executive Team, ICAT Steering Committee, International Advisory Board, Equality, Inclusion and Diversity Working Group, HSE-NDTP, DAFM, NIMDTA, CAI and international external panel members.

Competitive recruitment will be undertaken through submission of a completed application form and checklist, a detailed C.V., and two academic references by the closing date. The panel will select outstanding national and international candidates (international candidates must be eligible to enrol in a specialist training scheme in ROI or NI).

Selection criteria will include:

1. Demonstrated suitability to undertake postgraduate PhD research: intellectual capability, problem-solving skills, creativity, motivation and pursuit of excellence.
2. A personal statement outlining a clear interest in research and a vision for career progression both during and after completion of the ICAT-2 Programme, including an understanding of the requirements for progression to a senior academic clinical and veterinary appointment.
3. Academic endeavour, evidenced by research opportunities sought during career to date, research electives, research outputs. A candidate's stage of training and opportunities will be taken into consideration.
4. Understanding of basic research principles, methodology & ethics, with potential to contribute to research commensurate with level of appointment.
5. Alignment of the candidate's interests with the postgraduate specialty and the participating academic institutions' areas of research excellence
6. Applicants *should not have a defined research project, nor should they have chosen their supervisors prior to application* or during the application process. However, fellows are expected to have an understanding of the importance of research and how knowledge-gap focussed research can address areas of need in science, engineering and across the clinical disciplines. The selection of supervisors and approval of PhD projects will take place during year 1 of the programme.

Candidates will be selected on merit but must be eligible for or accepted onto a recognised clinical training path (see eligibility criteria). Successful candidates will be notified following their interview, and their ICAT-2 fellowship must be approved by the relevant postgraduate training body in advance of taking up a position on the ICAT-2 Programme.

Eligibility

Medical and Dental Graduates

To apply, you must already be on a postgraduate training scheme in the Republic of Ireland or Northern Ireland or eligible to be on such a scheme. If you are not already on a higher specialist training scheme, you will be asked to provide a letter of support from the specialist training committee (or university for dental trainees in Republic of Ireland) to confirm your eligibility

Eligibility Checklist:

- MB BS, MB BCH, BDS or B Dent Sc or equivalent medical or dental qualification
- Successful completion of relevant College/Faculty Membership exam or part thereof (e.g. MRCP / MFDS (UK) or MRCPI / MFD (ROI) or equivalent), relevant postgraduate certifications necessary for participation in the relevant specialist training programme (or equivalent requirements for general professional training in dentistry in Republic of Ireland).

Medical / Dental Registration

- (a) Eligible for full or limited registration with the Irish Medical Council (IMC), General Medical Council (GMC), Irish Dental Council (IDC) or General Dental Council (GDC) at time of application with the necessary licence to practise
 - or
 - (b) Full or limited registration at time of appointment with the IMC or IDC- for fellows intending to work in the Republic of Ireland- or with the GMC or GDC-for fellows intending to work in Northern Ireland, with the necessary licence to practise
- With**
- Documented evidence from the relevant training body (e.g. GMC, IMC, RCPI or equivalent) of achievement of appropriate competencies for stage of training by time of appointment in line with relevant national regulatory requirements (including satisfactory outcome at ARCP (NI))

Eligibility to work in the Republic of Ireland or United Kingdom at time of application

Satisfactory completion of relevant Vetting/Barring Scheme

Hold a current medical / dental indemnity policy that is valid in the jurisdiction where training will occur

and

(a) Either hold a National Training Number in a GMC or GDC approved UK Specialty Training Programme at ST3 level or above (ST1 or above for General Practice trainees and Dental Trainees in Northern Ireland)

or

(b) Be eligible to apply or already be appointed to a recognised Higher Specialist Training Scheme or approved 'run through' Specialist Training Programme in the Republic of Ireland overseen by an approved training body (medical graduates) or university (dental graduates) (ROI)

With

Hold a current fitness-to-practise certificate (or equivalent) from the relevant regulatory authority

Veterinary graduates

To apply, you must already be completing or have recently completed an EBVS/AVMA veterinary specialist training programme.

Eligibility Checklist:

- MVB or equivalent veterinary degree
- Completion of relevant specialist (European Board of Veterinary Specialisation (EBVS), American Veterinary Medical Association (AVMA) training programme or equivalent.

Veterinary Registration:

Eligible for full registration with the Veterinary Council of Ireland

With

Eligibility to work in the Republic of Ireland or United Kingdom at time of application