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Foreword

The UCD College of Health and Agricultural Sciences was established in 2015 and brings UCD’s health professionals and agricultural scientists together to exploit synergies and opportunities which exist across the One Health spectrum.

The College comprises five schools, the School of Agriculture & Food Science, the School of Nursing, Midwifery & Health Systems, the School of Medicine, the School of Public Health, Physiotherapy and Sports Science, and the School of Veterinary Medicine.

The College supports the indigenous agriculture and food sectors, and animal health and medical professions through education, cutting-edge research and other services to our community and stakeholders. We offer a spectrum of health professional courses across the constituent schools of the College, including an extensive portfolio of graduate education for healthcare professionals designed to fit their busy clinical schedules.

The One Health Initiative links the health of all living things together with the existing synergies between human and animal health, public health and food and environmental science.

This document articulates the activities and ambitions of the College and supports UCD strategies.
Our Vision

To lead the advancement of human, animal and environmental wellbeing for the benefit of society.

Our Mission

To foster the integration and delivery of impactful education, research and services in health, wellbeing and agriculture with excellent people and facilities.
Objective 1: Research
Increase the quality, quantity and impact of our research, scholarship and innovation

Objective 2: Education and Training
Be at the forefront of providing the best education to prepare our students for challenging careers and to be lifelong learners

Objective 3: Internationalisation
Build our engagement with students and partners in Ireland and around the world

Objective 4: Infrastructure
Champion the development of world-class infrastructure and facilities to support our vision

Objective 5: Be a Good Place to Work
Support our College community to continually develop and to fulfil their potential in a supportive and productive environment

Objective 6: College Leadership
Coordinate and represent the diverse activities within the College

Objective 7: External Impact
Leverage the activities of the College, with its stakeholders and partners, for the benefit of society
College of Health and Agricultural Sciences Institutes and Centres

Agriculture and Food

- Institute of Food & Health
- School of Agriculture & Food Science
- School of Public Health, Physiotherapy & Sports Science
- School of Veterinary Medicine
- School of Medicine
- School of Nursing, Midwifery & Health Systems
- Conway Institute

Translational and Personal Medicine

One Health

UCD Institute for Food and Health

The UCD Institute of Food and Health is a research centre of excellence with a focus on Food Quality and Processing, Food Safety, Personalised Nutrition and Health, and Food Chain Sustainability. Central to the Institute’s philosophy is the translation of its research for commercial, economic and societal impact, and also to utilise its scientific evidence basis to shape food and health policy. Research is conducted in purpose-built state-of-the-art laboratories and facilities based in the UCD O’Brien Centre for Science and at other locations including pilot plant facilities in the UCD Agriculture and Food Science Centre. By interacting across the four key research themes of the Institute, Food Quality and Processing; Food Safety; Nutrition and Health; and Food Chain Sustainability and by linking in with campus, national and international initiatives, Institute researchers can ensure that their contributions are relevant to a broad spectrum of scientific, health, legal and social arenas.

UCD Conway Institute

The UCD Conway Institute is a leader in biomedical research and innovation that supports the translation of this knowledge, through industrial, academic and clinical partnerships, to benefit the health and well-being of society in Ireland and beyond. Critically, the Institute recognises the high value of high-quality ‘blue skies’ innovative research in the biosciences and the opportunities that it provides for novel future ground-breaking research efforts. Close alignment of research, optimisation of infrastructure and development of an innovation agenda are essential for continued success, as is the fostering of a culture where new discoveries can flourish. To achieve this, it is critical to implement structures to support integrated research activities, which can bundle the capability available at the Institute to tackle the big questions in biomedical science. In addition to facilitating team-based science, the Institute also needs to be a home for individually excellent scientists, particularly in respect of ‘blue skies’ research, and to welcome and foster interdisciplinarity.
School of Agriculture and Food Science
UCD Centre for Forest Research
UCD Centre for Humanitarian Action

School of Veterinary Medicine
UCD Centre for Veterinary Epidemiology and Risk Analysis

School of Public Health, Physiotherapy and Sports Science
National Nutrition Surveillance Centre at UCD
UCD Centre for Food Safety
UCD Centre for Health Services Research
UCD Centre for Safety and Health at Work
UCD Centre for Sports Studies
UCD Centre for Support and Training in Analysis and Research
UCD Centre for Translational Pain Research
UCD Childhood and Human Development Research Centre

School of Medicine
UCD Academic Centre on Rare Diseases
UCD Bioinformatics Centre
UCD Centre for Arthritis Research
UCD Centre for Emergency Medical Science
UCD Centre for Human Reproduction
UCD Centre in Translational Oncology
UCD Diabetes Complications Research Centre
UCD Perinatal Research Centre

7,933 students registered with the College of Health and Agricultural Sciences
1,087 faculty, research and support staff are employed across the College

840 Average annual publications
382 Average annual internationally co-authored research papers

Source: UCD Institutional Research
Objective 1: Research
Increase the quality, quantity and impact of our research, scholarship and innovation

New knowledge is at the heart of what a university is, and the College is strongly committed to excellence in research and innovation to deliver impact locally, nationally and globally. By building an outstanding base of scholarship within all our disciplines, we deliver knowledge and ideas that inform policy, support enterprise, deliver innovation, and enrich society.

College Actions
- Foster impactful research and innovation
- Identify and coordinate research opportunities in thematic and priority areas
- Seek opportunities for, and facilitate, interdisciplinary collaborations
- Develop the College organisation, support services and systems for the management of research, innovation and impact
Examples

**Systems Biology Ireland**

Systems Biology Ireland (SBI) has successfully developed an integrated computational and experimental research programme focusing on the design of new diagnostic and therapeutic approaches to diseases, primarily cancer, based on a systems level, mechanistic understanding of cellular signal transduction networks. SBI uses mathematical and computational modelling approaches in combination with cutting edge experimental technologies in genomics, transcriptomics, proteomics, advanced microscopy and flow cytometry as well as cell biology and molecular biology methods. The purpose-built SBI facility houses a multidisciplinary team of some 50 researchers including bioinformaticians, statisticians, computational scientists and modellers, engineers, biologists, biochemists and physicists. SBI is in the top five of the world’s systems biology centres, according to two independent international scientific review panels (2014 & 2016).

**The UCD Charles Institute of Dermatology**

The UCD Charles Institute of Dermatology is the premier academic institute devoted to dermatology research and training in Ireland. The Institute’s vision is to become a world leader in this area of medicine, to advance improved patient care through the discovery of new treatments and therapies. The clinical need is significant, not least as up to 20% of all visits to GPs in Ireland have some skin focus. This vision in experimental and translational dermatology research integrates a wide range of stakeholders, where our ecosystem of students, researchers, clinicians and patients benefit as a whole.

**Patient Voice: Participatory Action Research to Support the Self-management of Rheumatoid Arthritis**

Dr Susie Donnelly, Professor Thilo Kroll and Dr Hasheem Mannan of the School of Nursing, Midwifery & Health Systems, and Prof Gerry Wilson of the School of Medicine (Conway Institute) are conducting research working with people living with rheumatoid arthritis to capture their experience and co-design solutions to support the self-management of the disease. This research forms part of a Medical Humanities and Social Science Collaboration Scheme in the UCD Centre for Arthritis Research.

**Institute for Sport and Health**

The School of Public Health, Physiotherapy & Sports Science is home to UCD’s Institute for Sport and Health. The Institute supports world-class research and service activities in the Sports and Exercise Sciences for the university and its wider community. It is home to the Ad Astra Elite Sports Programme which provided eight Olympians to the Rio Games, has an accredited Human Performance laboratory, a postgraduate research hub and a sports medicine service.

**Bovine Tuberculosis**

Through funding from Science Foundation Ireland, Professors David MacHugh (School of Agriculture & Food Science) and Stephen Gordon (School of Veterinary Medicine) are developing next-generation tools for the control of bovine tuberculosis (TB). Their research programme uses a One Health approach to investigate the host response and molecular virulence mechanisms of Mycobacterium tuberculosis and Mycobacterium bovis, the pathogens that cause TB in humans and cattle, respectively. This research aims to provide increased knowledge on bovine TB; new laboratory-based diagnostic tests; and provide genomic information that can be used to breed cattle with improved TB resistance.
Objective 2: Education and Training

Be at the forefront of providing the best education to prepare our students for challenging careers and to be lifelong learners.

Collectively the Schools within the College provide a holistic education experience that challenges students to learn, enquire, create, reason and innovate so they can gain knowledge and attitudes to be personally successful, be life-long learners and shape local and global society.

College Actions

- Foster excellence in scholarship in all disciplines
- Drive developments in teaching, learning and assessment methods
- Prepare competent graduates who contribute to society and their professions
- Foster student engagement and an outstanding student experience
Examples

Mater Educational Hub
The Mater Misericordiae University Hospital and UCD have developed an Education & Training Centre at the Mater Hospital. This facility occupies the ‘Old ICU’ corridor in the original 1861 hospital building. This significant resource will allow for the development of innovative multidisciplinary education and training programmes for both undergraduate and postgraduate students and will greatly advance the scope of education, training and community engagement available at the hospital. The Education & Training Centre is a major component in the development of the Mater Misericordiae University Hospital as a campus of the Ireland East Hospital Group Academic Medical Centre Project.

BSc in Human Nutrition
The College teaches several programmes that exemplify the broad health challenges that exist. One such programme is the BSc in Human Nutrition that covers many aspects of nutritional sciences, from biochemistry to molecular and public health nutrition, and includes topics such as nutrition communication and food regulatory affairs. Teaching on the programme is delivered by research active academic staff from several Schools in a variety of human nutrition related fields from the exploration of the relationship between diet, lifestyle and health with a view to enhancing public health to the investigation of diet-genome interaction and the role of human genetic variation in the metabolism of dietary substances.

UCD Centre for Safety and Health at Work
The UCD Centre for Safety and Health at Work is a continuing professional development centre in the School of Public Health, Physiotherapy & Sports Science. The Centre offers multidisciplinary education in occupational safety and health (OSH) to adult and professional students, using innovative technology and flexible teaching programmes to facilitate industry-based students to learn and implement strategies to protect and promote worker health and wellbeing, and to reduce work-related accidents and ill health. The Centre offers two-year programmes for OSH professionals at Higher Diploma and MSc level, with a one-year full-time MSc option available to international students. In addition, the Centre offers two one-year blended online programmes that provide education opportunities for workers with non-professional responsibility for OSH, and also for graduates with an additional environmental remit. The programmes have been leading the field for over 25 years and have graduated over 9,000 students.
The College will attract a diverse cohort of international students and staff, and offer educational opportunities for our own students around the world. The College advocates for the realisation of the United Nations Sustainable Development Goals and by highlighting global challenges in sustainable health and agricultural sciences, our graduates will emerge with the skills, experience and perspectives necessary to be global citizens.

College Actions

• Champion the relevance of the Sustainable Development Goals through our education and research programmes

• Support synergistic collaboration in international engagement initiatives across the Schools

• Increase the engagement with incoming international delegations and visitors such that the full range of academic interests across the College are effectively leveraged

• Strengthen links with the UCD International Office

Objective 3: Internationalisation

Build our engagement with students and partners in Ireland and around the world
Examples

Universitas 21 Health Sciences

Universitas 21 (U21) is an international network of 26 leading research-intensive universities in seventeen countries. Through its membership of U21, UCD provides its students and staff with an exciting and innovative range of opportunities for collaboration at every level with some of the world’s leading universities. Associate Professor, Mary Codd, has been awarded the Universitas 21 Health Sciences Group (HSG) Teaching Excellence Award. This award recognises individuals who demonstrate “an outstanding and sustained record of teaching in the health sciences; contributions to advancing teaching and learning with a particular focus on interdisciplinary teaching and on students’ interdisciplinary learning; and International collaboration in teaching and learning, including internationalisation of curricula”.

RCSI and UCD Malaysian Campus (RUMC)

RUMC is Malaysia’s first accredited private medical school, and is owned and was established by the Royal College of Surgeons in Ireland (RCSI) and UCD. Formerly the Penang Medical College, the RUMC has recently been awarded University status by the Malaysian Ministry of Education as a Foreign University Branch Campus, one of the highest levels for a foreign-owned institution in Malaysia. RUMC remains as the only Irish university in the region and recognised by the Malaysian Medical Council (MMC) and Irish Medical Council (IMC) as graduating high performing doctors. Students are recognised for practice in the USA, Canada and others by the ECFMG and FAIRMER with the institution listed as an Irish medical school in the World Directory of Medical Schools.

International Statistics

88 Countries of Student Citizenship

162 United Kingdom
34 Poland
88 Middle Eastern Countries
34 India
92 China
185 Canada
299 United States
45 France
17 Nigeria
71 Singapore
236 Malaysia
Objective 4: Infrastructure
Champion the development of world-class infrastructure and facilities to support our vision

A University infrastructure defines its capabilities and enables its ambition. The Schools in the College have benefited from state of the art facilities and infrastructure during stages of their development, but these now need to be enhanced to enable the College to deliver on its ambition and vision.

College Actions
- Identify and catalogue infrastructure and facility needs
- Drive the development of shared facilities within the College
- Develop a compelling rationale to attract external funding for development
- Seek and attract funding to deliver the infrastructure needs
Examples

**UCD Health Sciences Centre**
Located in the UCD Science District on the Belfield campus, the UCD Health Sciences Centre is home to three Schools in the College of Health and Agricultural Sciences. The Centre also encompasses the UCD Health Sciences Library and the Medical Bureau of Road Safety and is connected to both the UCD Conway Institute and the UCD Charles Institute of Dermatology. Completed in 2007, this 16,000m² building is designed to support interdisciplinary education, research and social interaction whilst preserving a degree of identity for each discipline. Medicine, Nursing, Radiography and Physiotherapy groups are arranged in three wings around the central modern Health Sciences library.

**Ireland East Hospital Group**
The Ireland East Hospital Group (IEHG) is the largest and most complex of Ireland’s hospital groups. In collaboration with UCD, IEHG’s ambition is to be the national leader in healthcare delivery, working to improve the quality of healthcare and deliver better patient outcomes through education, training, research and innovation. The IEHG comprises 11 hospitals (6 voluntary and 5 statutory), it spans eight counties, it works with four Community Health Organisation partners and serves over 1 million people.

**UCD Veterinary Hospital**
The UCD Veterinary Hospital (UCDVH) moved to purpose built premises on the Belfield campus in 2002, and since that time has strived to continually improve its facilities and equipment available. UCDVH is composed of a small animal area with dedicated surgical suites and intensive care facilities, and a large animal area with dedicated farm animal and equine facilities, all of which are complemented by modern diagnostic imaging and laboratory equipment. Equipment and facilities continue to be second to none, and they now include:
- A full range of video endoscopic equipment for large and small animals
- The first dedicated veterinary 4 slice spiral CT scanner in Ireland
- An Animal Rehabilitation Clinic dedicated rehabilitation facility for small animals
- A veterinary blood donor clinic
- Radioisotope scanning
- Access to small animal MRI

**UCD Lyons Farm**
UCD Lyons Farm is a 250 hectare world-class platform for delivering outstanding teaching and research in agriculture, veterinary medicine and environmental science, and across the One Health spectrum, that address global challenges in an Irish context. The Farm includes dairy and beef cows, sheep, horses, pigs, and land for tillage and environmental science teaching and research.
Objective 5: Be a Good Place to Work

Support our College community to continually develop and to fulfil their potential in a supportive and productive environment

UCD provides a remarkable environment in which to work and learn. This environment is created by the College infrastructure and the interactions of the College and School communities. The College recognises that it is the people in the community that create the success for the University.

College Actions

• Recognise and celebrate good practice in activities and achievements
• Foster faculty and staff progression, development and ambition
• Develop systems to enhance working and collegial environments
• Advance equality, diversity and inclusion
Examples

Healthy Ireland Campus Initiative
Healthy UCD endeavours to create a culture supportive of healthy choices for students and staff at UCD and to raise awareness of individuals’ capacity to improve their own health. Our University is concerned with the development of the whole person and providing opportunities to establish lifelong habits and attitudes for learning, welfare, community awareness, health and wellbeing. This is done through encouraging active participation in intellectual, social and sporting pursuits and supporting the achievement of personal excellence, individual potential and academic excellence through better health and wellbeing.

UCD Teaching and Learning Awards
The University celebrates the achievements of colleagues who make an outstanding contribution in the pursuit of teaching excellence and the enhancement of student learning through Teaching and Learning Awards. The award scheme highlights the value and importance that the University places on high-quality teaching, learning, assessment and curriculum design. Nominations are made by students and the College of Health and Agricultural Sciences is delighted to have three recent winners amongst its ranks; Dr James Matthews from the School of Public Health, Physiotherapy & Sports Science, Dr Niamh Nestor from the School of Veterinary Medicine, and Dr Monica Gorman from the School of Agriculture & Food Science.

P4G
Performance for Growth (P4G) is one of the key initiatives which will support UCD in delivering the mission and achieving the vision expressed in our University Strategy. P4G is informed by and supports the University Strategy generally, and in particular our mission to ‘provide a supportive community in which every member of the University is enabled to achieve their full potential’ and Strategic Objective 5 to ‘attract and retain an excellent and diverse cohort of students, faculty and staff’. The introduction of this framework will:
• Support a culture of development
• Help employees achieve their potential
• Provide clarity on objectives and performance expectations
• Provide feedback on achievements
• Help in career development and progression

Faculty

Source: UCD Institutional Research

70% staff satisfaction measure

42.1% Male
57.9% Female
Objective 6: College Leadership
Coordinate and represent the diverse activities within the College

The College provides leadership in synergising the activities of its constituent Schools. The College recognises that the Schools are its fundamental academic units and that students enrol in programmes in Schools, but the College coordinates and facilitates communications between constituent units and also advocates for its constituent Schools on University-level working groups and committees.

College Actions

• Establish regular and engaging fora with opportunities for discourse and collaboration across the Schools
• Facilitate the cascade of information from each School to all others
• Build a consensus position on items of strategic importance and represent these views strongly across the University
• Identify opportunity for cross-College collaborations and facilitate good engagement by our students and staff in the life of the University
College Organisational Chart
Objective 7: External Impact

Leverage the activities of the College, with its stakeholders and partners, for the benefit of society

The College aims to deliver major benefits to society and contribute to resolving global challenges in health, agriculture and the environment, through the range of core disciplines within its constituent Schools. While each School has the expertise and knowledge to deliver within its own domain, the College delivers impact that is beyond the reach of individual Schools. It achieves this by promoting and amplifying the outcomes of multidisciplinary, teaching, research, and innovation, to stakeholders and partners and by actively lobbying for priority projects and initiatives.

College Actions

• Strengthen links with stakeholders and partners
• Champion the multidisciplinary approach of the College to tackle global problems
• Lobby for the College to benefit society
Examples

UCD Volunteers Overseas
UCD Volunteers Overseas (UCDVO) is one of the leading international volunteering and development education programmes within the Higher Education sector in Ireland. Now in its 15th year, UCDVO works with local partner organisations in 5 countries – India, Haiti, Nicaragua, Tanzania and Uganda. Since 2003, a total of 1,533 UCD students, staff and graduates have engaged in overseas placements, enhancing their awareness of key international development issues and the potential which they have to bring about positive global change. Key achievements include the following – construction of health centres, schools, agricultural facilities, and the development of computer labs in schools; educational workshops and skills sharing in IT skills, English language and health education for teachers, health workers and school children; awareness raising on children’s rights and environmental protection through rallies, workshops and group projects. Through the UCDVO Programme, volunteers become active global citizens, ensuring their time at UCD has been a truly international experience, which in turn, benefits some of the world’s most marginalised communities.

Volunteering in India
Anna Scott, BSc Physiotherapy
Despite doing a bit of research into the Indian healthcare system before going on project, I was still not entirely sure of what to expect in North East India. On arrival, I was pleasantly surprised by the quality and quantity of equipment at the centre that UCD physiotherapy students regularly volunteer. All the children in the Ferrando Speech and Hearing Centre (the school and physiotherapy unit where we were based) thankfully had access to this incredible equipment. Unfortunately, it was when visiting the surrounding villages that the lack of government funding into healthcare was really highlighted. There were some children as old as 17 in an extremely poor health condition that had never received any medical help, something which I found extremely difficult to come to terms with. It made me realise the amazing benefits that UCDVO programmes are having on the health and lives of the children in North East India, and that with each year of the project, more and more children are receiving treatment and ultimately, improving their health.

201 students from the College of Health and Agricultural Sciences have participated in the UCD Volunteers Overseas programme in the last three years
Global Health Initiatives
The Global Health (gHealth) Research group is a multi-disciplinary team of researchers focused on gHealth issues in low- and middle-income countries and is developing new innovative strategies for diagnosis, treatment and management of disease that include biomarker & therapeutic research, mHealth (mobile health) and health care system reform. Capacity building and implementation science are key objectives of the gHealth Research group. And these are central features to achieving a successful and long lasting global health impact. We are currently mediating this through our strong collaborations between Ireland, Malawi, Uganda, UK, Norway, and the USA.

CSTAR
The Centre for Support and Training in Analysis and Research (CSTAR) is an approved UCD academic centre for research and training within the School of Public Health, Physiotherapy and Sports Science UCD. Specialising in statistical analysis, CSTAR offers a consultancy and training service to individuals, institutions and companies carrying out health research in Ireland. Services include support and advice for the preparation of grant applications, study design, data management, statistical analysis, report writing and manuscript review and generation. Clients come from a broad remit of areas and disciplines, including PhD candidates, researchers involved in the biomedical and clinical sciences, and even researchers in the humanities. CSTAR provides training programmes in data management and statistical analysis.
CVERA
The UCD Centre for Veterinary Epidemiology and Risk Analysis (CVERA) was set up to conduct scientific research to support policy decision-making on a diverse range of issues relevant to animal health and welfare in the Irish agriculture and food industries, and is based in the School of Veterinary Medicine. Research from CVERA directly contributes to policy decision-making in animal health and welfare policy by the Irish Government. Key areas of impact include bovine tuberculosis (bTB), animal health surveillance, cadmium mitigation, on-farm antimicrobial usage, and the management of on-farm animal welfare incidents. The beneficiaries of the research by this team include farmers, consumers and the food industry, with positive environmental impact being a consequence of the work.

The UCD Centre for Humanitarian Action
The UCD Centre for Humanitarian Action (CHA) is a multi-disciplinary research and teaching Centre focused on international humanitarian action: actions aimed at saving and preserving life, preventing and alleviating human suffering, and supporting life with dignity for those affected by man-made and natural disasters. The CHA is based in the School of Agriculture & Food Science and draws on expertise from other Schools and Institutes in the College and UCD. The CHA also has formal links with a worldwide network of universities, and governmental and non-governmental organisations.
Ireland's Global University