



Hatter Cardiovascular Institute  
Annual Summary  
2018 -19

# Research (Sep 18- Aug 19) — Each of our three research groups continues to make significant advances from basic science studies to ongoing clinical evaluations.

## Cardioprotection

NEW: Therapeutic benefit of SGLT2 Inhibitors

NEW: Role of Gasdermin-D in cardiac cell death

NEW: Novel activators of the RISK survival pathway

NEW: Role of histones in ischaemic-reperfusion injury

## Cardio-Oncology

Basic studies investigating protection of the heart from chemotherapy

ERIC ONC Clinical Study – investigating benefits of cardioprotection during chemotherapy; ongoing recruitment

Collaboration with Macmillan Cancer Centre at UCLH

## Neuroprotection

Initiation of pre-clinical studies investigating:

- Mechanisms of Ischaemic stroke
- Effects of GLP-1 analogues & remote conditioning on ischaemic stroke

Support from National Hospital for Neurology & Neurosurgery

# Education (Sep 18- Aug 19) – Another successful year of leading meetings and workshops for the research and medical communities.

## Cardiology, Diabetes & Nephrology at the Limits

- **London** – 21<sup>st</sup> annual meeting
- **Brazil** (University of Campinas) – 1<sup>st</sup> annual meeting, now active in S. America
- Over £3 million from industry sponsors raised
- Expansion to Canada (University of Toronto) and USA (Cedars-Sinai) planned for 2020; in talks with China (Fuwai Hospital) for 2021

## HCI Horizon Series & Workshops

- 2<sup>nd</sup> annual meeting held at Royal College of Physicians in London (Dec 2018); 3<sup>rd</sup> annual meeting scheduled for Dec 9<sup>th</sup>, 2019 (RCP, London)
- NEW: Hatter Horizon Series programme for GPs Dec. 3<sup>rd</sup>, 2019 (RCP, London)
- NEW: Hatter Workshops
  - Exosomes and their role in cardioprotection scheduled for Jan. 31<sup>st</sup>, 2020

## HCI Seminar Series

- Invited national & international speakers gave topical presentations throughout year; ongoing through 2020

# Achievements (Sep 18- Aug 19) — Across all areas of activity we have realised success and continued support.

## Funding

- 4 major British Heart Foundation grants awarded totaling £ 898,204
  - Project Grants (3) & Clinical Research Training Fellowship (1)
- Support received from The Hatter Foundation, The Rubin Foundation Charitable Trust & The Swire Charitable Trust

## Publications

- 25 scientific and review papers published
- Prof Yellon named as one of the top cited researchers (top 1%) in his field for 2018

## Key Metrics

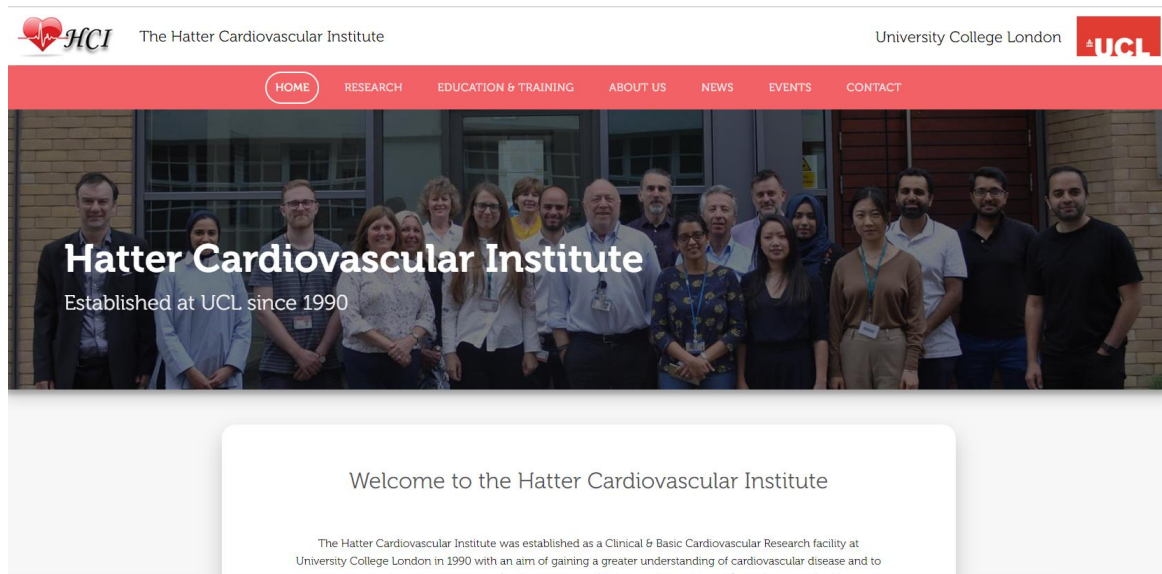
## Students

- 7 awarded PhD's
- 3 awarded MD(Res)
- Currently supervising 4 PhD & 4 MD(Res) students

## External Engagement

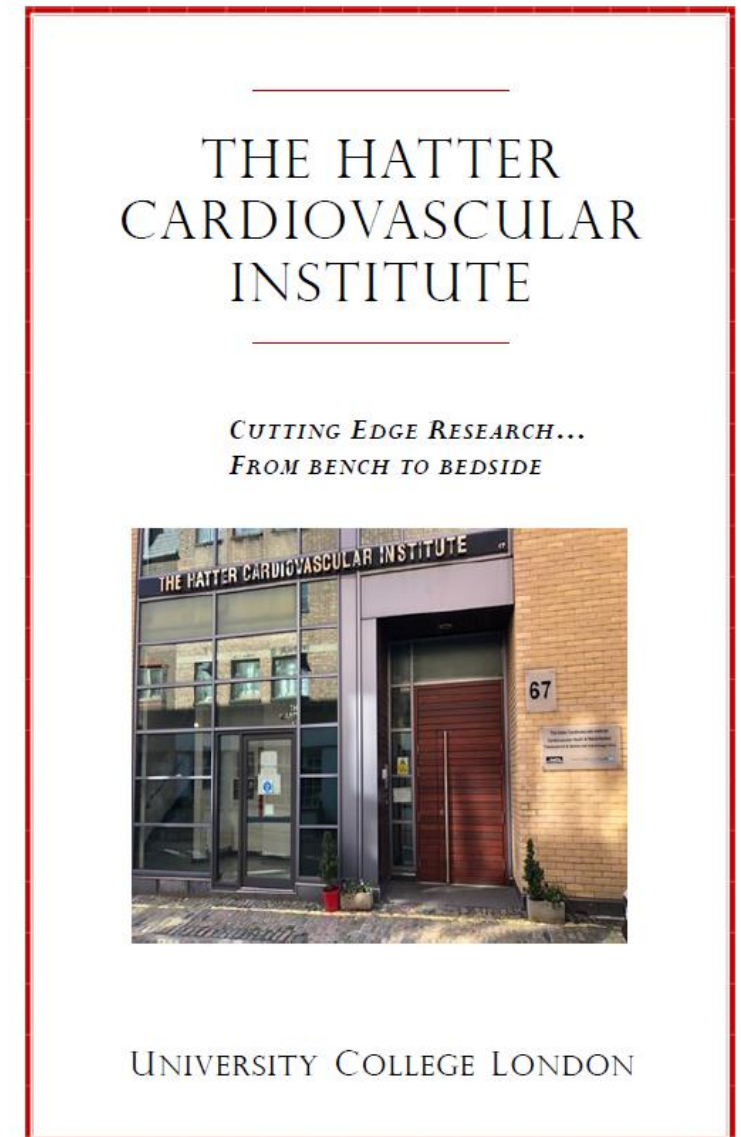
- Team invited to give Plenary and State of the Art lectures at major national & international meetings
- Joint UCL-Wellington collaboration renewed for 5 Clinical Fellows to undertake PhD/MD(Res) at UCL

# Communications (Sep 18- Aug 19) – Refreshed website and external communications materials for research awareness and fundraising



**New Website**

**Updated Brochure –  
view on next page**







## WELCOME

*Professor Derek Yellon*

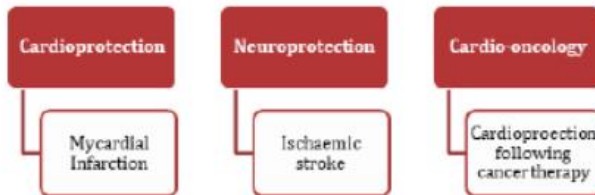
*Director*

The Hatter Cardiovascular Institute (HCI) was established as a Basic & Clinical Cardiovascular Research facility at University College London in 1990 with an aim of gaining a greater understanding of cardiovascular disease and to generate new therapeutic strategies for the treatment of ischaemic heart disease. Since that time, the Hatter Cardiovascular Institute has developed into one of the world's leading centres for the study of cardiovascular disease and is credited with pioneering discoveries on how to protect the heart from damage during a heart attack.

Based on our expertise gained in cardiovascular disease, we have now developed two new research programmes, the first in neuroprotection specific to ischemic stroke and the second in cancer, investigating how best to reduce the damage to the heart from chemotherapy.

Within our framework we undertake basic and clinical research at the highest level, train clinical and basic scientists and continue to strive to improve the treatment options available to patients.

### HCI Research Programmes



# Brochure

## RESEARCH

The overall research interests of the Hatter Cardiovascular Institute include myocardial protection and the pathophysiology of Ischaemic Heart Disease (IHD). More specifically we focus on developing ways to protect the diabetic and non-diabetic heart from the consequences of myocardial injury. This has involved research into the understanding of all levels of the pathophysiology of ischaemic heart disease from molecular to cellular to clinical.



## EDUCATION

Ongoing training and education are vital in scientific research. The Hatter Cardiovascular Institute at UCL is a founder and key supporter of educational platforms both nationally and internationally.



•International meeting for leading clinical academics & senior clinicians to discuss challenges in cardiology, diabetes & nephrology

### The HCI International Workshop on Cardioprotection

•Bi-ennial meeting for leading basic & clinical scientists to debate the future direction of myocardial protection

### Training

•Support clinical and non-clinical scientists for the degrees of MD(Res) and PhD



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We wish to thank the following donors for their continued and generous support:

*The Hatter Foundation  
UCLH Charity  
The Rubin Foundation Charitable Trust  
The Swire Charitable Trust  
Mr & Mrs Mark Donald*

