• founded in 1826

• the first to admit students regardless of class or religion

• the first to admit women students on equal terms with men

• the first to offer the systematic teaching of Medicine, Law and Engineering in England
Student Population

- 12,100 undergraduates
- 3,100 research (PhD) students
- 5,000 taught graduate (Master’s) students
- 2,705 PhDs and 405 Professional Doctorates in the past 5 years
- 52% women, 48% men
- >7,000 international students from 140 different countries
- 34% of students come from outside the UK
Academic Standing

- 21 Nobel Prize winners
- 83% of departments rated 5/5* in RAE 2001
- One of the highest research incomes of any UK university
- Consistently ranked as one of the top three multi-faculty universities in the UK
Academic Standing – Nobel prize winners

1904 Chemistry: Sir William Ramsay
1913 Literature: Rabindranath Tagore
1915 Physics: Sir William Henry Bragg
1921 Chemistry: Frederick Soddy
1922 Physiology or Medicine: Archibald Vivian Hill
1928 Physics: Owen Willans Richardson
1929 Physiology or Medicine: Sir Frederick Gowland Hopkins
1936 Physiology or Medicine: Sir Henry Hallett Dale
1944 Chemistry: Otto Hahn
1947 Chemistry: Sir Robert Robinson
1955 Chemistry: Vincent du Vigneaud
1959 Chemistry: Jaroslav Heyrovsky
1960 Physiology or Medicine: Peter Brian Medawar
1962 Physiology or Medicine: Francis Harry Compton Crick
1963 Physiology or Medicine: Andrew Fielding Huxley
1970 Physiology or Medicine: Bernard Katz
1970 Physiology or Medicine: Ulf Svante von Euler
1988 Physiology or Medicine: Sir James Black
1991 Physiology or Medicine: Bert Sakmann
2007 Physiology or Medicine: Professor Sir Martin Evans
2009 Physics: Professor Charles Kao
Academic Standing

• highest number of professors of any university in the UK
  - 677 established and personal chairs

• highest number of female professors

• 36 Fellows of the Royal Society

• 10 Fellows of Royal Academy of Engineering,

• 78 Fellows of the Academy of Medical Sciences,

• 26 Fellows of the British Academy
<table>
<thead>
<tr>
<th>World Rank</th>
<th>Institution*</th>
<th>Region</th>
<th>Regional Rank</th>
<th>National Rank</th>
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# Academic Ranking of World Universities - 2010

## Europe

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# QS World University Rankings Results 2010

## Top 100

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<th>Rank 2009</th>
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<th>Country</th>
<th>Size</th>
<th>Research</th>
<th>Focus</th>
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more than 4,000 academic and research staff – including 677 professors

- Biomedical Sciences 1,971
- Life Sciences 591
- Mathematical & Physical Sciences 445
- Engineering Sciences 391
- Social & Historical Sciences 292
- Arts & Humanities 180
- Built Environment 136
- Laws 62
research strategy
UCL research groups are organised by themes and these constitute an intellectual platform for interdisciplinary collaboration applied to the world’s major problems.
• Ageing and wellbeing
• Biomedical imaging
• Bioprocessing
• Cancer
• Cardiovascular medicine
• Cell and molecular biology
• Children’s and women’s health
• Communication, language and hearing
• Computational science and digital systems
• Economic analysis
• Energy, environment and transport
• European studies
• Experimental and systems medicine
• Genetics and epigenetics
• Global health
- Health services
- Heritage, history and cultures
- Infection, immunology and inflammation
- Justice, ethics and human rights
- Law and enterprise
- Materials
- Media, communications and information
- Migration
- Nanotechnology
- Neuroscience
- Origins
- Public policy and governance
- Risk and security
- Systems engineering
- Urban and spatial studies
we have prioritised those areas in which interdisciplinary partnerships can thrive, and where critical mass will deliver novel achievements.

These areas are global in significance and draw on our expertise across the arts and humanities, through the social and physical sciences, to clinical medicine.

We call them the UCL Grand Challenges of Global Health, Sustainable Cities, Intercultural Interaction and Human Wellbeing.
Global Health

• This problem goes beyond HIV-AIDS and malaria....
• These diseases can largely already be treated, but societal or natural forces such as poverty, ignorance, poor governance, unfair trade, climate change, diminished resources, etc. prevent this from happening in huge parts of the world
• How do we overcome these barriers?
UCL Institute for Global Health

Themes

- Health effects and climate change
- Education, outreach and capacity building
- Maternal and Child Health
- Infectious Diseases
- Non-communicable diseases
- Politics, Policy and Justice
Sustainable Cities

• Climate change, population growth and limitations on natural resources threaten the long term stability of 21st Century cities

• This challenge requires the integration of scholarship in the built environment, laws, energy, transport, waste, employment, security, telecommunication….
Intercultural Interactions

• How can we sustain global stability and order?

• How can we understand and enhance the interactions between East and West; North and South ..?

• What does it mean to be British…or Indian…or Chinese…?

• What will be the nature of the nation state of the future?

• How do we resolve international conflicts, determine ownership of natural resources, or understand the role of international organisations like the UN?
Human Well Being

• What does it mean to be human?

• How do we enhance the individual and ensure that we have the social conditions for a healthy and fulfilling life from childhood to old age?

• What is “quality of life”?

• Can we develop “personal medicine”?

• Can we protect human rights and set just priorities between different social groups?
EC research funding at UCL
Grants awarded to UCL through the Framework Programmes

1147 grants have been awarded to UCL via the seven Framework programmes (1984 – 2013)
value of grants awarded to UCL via EC Framework programmes

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FP4  FP5  FP6  FP7

£100,000,000  £150,000,000  £200,000,000  £250,000,000
number of grants awarded in Life Sciences and Biomedicine

FP2, FP3, FP4, FP5, FP6, FP7

year


number of grants awarded

biomedical sciences life sciences SLMS
Value of grants awarded in Life Sciences and Biomedicine

The graph shows the value of grants awarded in Life Sciences and Biomedicine over a series of years. The grants are categorized into different phases (FP2 to FP7) and the value is measured in £ millions. The graph indicates fluctuations in funding throughout the years, with some phases showing a significant increase in grants awarded.
European research collaborations via FP6/7

• 655 grants awarded via FP6/7
• involves 2,871 research collaborations
• >600 HEIs, public organisations & commercial enterprises
• 46 countries (12 non-European)
UCL’s collaborations via FP6/7  

total = 2871, October 2010
University College London participations in FP7 (November 2009)

Priority Area

Science in Society
Research Infrastructures
Marie Curie
ERC
Space
SSH
Transport
Environment
NMP
ICT
Health

€ EC Requested Contribution

UK HEI Average
UCL

Millions

0 2 4 6 8 10 12 14 16 18 20
opportunities for collaboration between

Taiwanese universities and UCL

via FP7
Seventh Framework Programme for Research and Technological Development (FP7)

- Runs from 2007 to 2013

- Total budget is 53.2 billion Euros
three programmes of relevance to Taiwan and UCL

• Cooperation  EUR 32.413 billion
• Ideas  EUR 7.51 billion
• People  EUR 4.75 billion
cooperation
cooperation

• largest of the programmes

• supports cooperation between universities, industry, research centres and public authorities throughout the EU and beyond

• programme sub-divided into ten distinct themes
  - health
  - food, agriculture, fisheries & biotechnology
  - nanosciences, nanotechnologies, materials, new production technologies
  - information and communication technologies
  - energy
  - environment
  - transport
  - socio-economic sciences and humanities
  - space
  - security
Top-down approach

“calls” outlining topics of interest announced periodically
Consult the **Work Programme** for the theme of interest

- identify a call relevant to your interests
- form a consortium
- write the proposal
- submit by relevant deadline
- response
- negotiation
- grant award
ideas
Guiding principles of ERC grant schemes

• “bottom-up” approach

• Projects in all fields of research eligible for funding

• Individual research teams led by a single PI are supported

• Grants are awarded to the host institution that engages the PI
Two types of ERC grants available:

*ERC Starting Independent Researcher Grant (ERC Starting Grant)*

*ERC Advanced Investigator Grant (ERC Advanced Grant)*
ERC grants awarded (upto October 2010)
ERC starting grants awarded (upto October 2010)
ERC Starting Grants

- provides support to the independent careers of excellent researchers, **whatever their nationality**, located in or moving to the EU Member States and Associated Countries, who are at the stage of starting or consolidating their own independent research team or programme

- **Funding**: up to € 2.0 M per grant (normally up to € 1.5 M per grant)

- **Duration**: up to 5 years

- **Calls for proposals**: published annually in summer (normally late July each year) with deadlines in autumn

- **Budget**: 400 million Euros
ERC Advanced Grants

- objective is to encourage and support excellent, innovative investigator-initiated research projects by leading advanced investigators

- complements the Starting Grant scheme by targeting researchers who have established themselves as being independent research leaders in their own right

- **candidates can be of any nationality**, must be scientifically independent and have a recent research track-record and profile which identifies them as leaders in their respective field(s) of research

- Funding: up to € 3.5 M per grant (normally up to € 2.5 M)

- Duration: up to 5 years

- Calls for proposals: published annually in autumn with deadlines in spring

- Budget = 590 million Euros
People

(Marie Curie actions)
Objective is to strengthen the human potential in research and technology in Europe by:

• stimulating people to enter into the profession of researcher
• encouraging European researchers to stay in Europe
• attracting to Europe researchers from the entire world
• making Europe more attractive to the best researchers
• International Incoming Fellowships (IIF)

• International Outgoing Fellowships for career development (IOF)
International Incoming Fellowships (IIF)

• researchers based in third countries
• must have either a doctoral degree or at least 4 years’ full-time research experience, after obtaining a degree
• individual applies with the host institution
• include a salary for the researcher and a contribution to research-related costs
• financial support can be given for up to 2 years
• mutually-beneficial research co-operation
International Outgoing Fellowships for career development (IOF)

• researchers who are nationals of EU Member States and Associated Countries

• must have either a doctoral degree or at least 4 years’ full-time research experience, after obtaining a degree

• include a salary for the researcher and a contribution to research-related costs

• financial support can be given for up to 3 years in all. This includes an initial outgoing phase of 1-2 years in a Third Country followed by a mandatory reintegration phase of 1 year
How UCL encourages researchers to apply for FP7 funding
1. Each faculty has a research co-ordinator who informs all staff within their faculty when a new call is announced by the EC

2. UCL has a European Research and Development Office (ERDO) which also alerts staff when a call is announced

3. ERDO organises seminars for staff when major calls are announced

4. ERDO supplies a project manager when UCL is the coordinator of a project

5. ERDO supplies expertise to look after the financial aspects of the project
sources of information and help


Details of open calls:  http://cordis.europa.eu/fp7/dc/index.cfm

National contact point for Taiwan: