



THE ROYAL
SOCIETY

CELEBRATING 350 YEARS



Fellowship of the Royal Society
- a window on the election process

twenty ten | 350 years of
and beyond | excellence in science

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The Royal Society is the world's oldest scientific academy in continuous existence, and has been at the forefront of enquiry and discovery since its foundation in 1660.

The backbone of the Society is its Fellowship of the most eminent scientists of the day, elected by peer review for life and entitled to use FRS after their name. There are currently more than 60 Nobel Laureates amongst the Society's approximately 1400 Fellows and Foreign Members.

Throughout its history, the Society has promoted excellence in science through its Fellowship and Foreign Membership, which has included Isaac Newton, Charles Darwin, Ernest Rutherford, Albert Einstein, Dorothy Hodgkin, Francis Crick, James Watson and Stephen Hawking.

The Society is independent of government, as it has been throughout its existence, by virtue of its Royal Charters. In 1663, The Royal Society of London for the Improvement of Natural Knowledge was granted its Arms and adopted the motto 'Nullius in verba', an expression of its enduring commitment to empirical evidence as the basis of knowledge about the natural world.

"The new Fellows elected each year provide new energy and vigour to the Royal Society. The election process is therefore crucial to both the well-being and standing of the Society; it involves a very considerable amount of work by many Fellows. This document explains the procedure by which their work is carried out."

Professor Martin Taylor FRS, Physical Secretary and Vice-President of the Royal Society



Professor Martin Taylor FRS,
Physical Secretary and
Vice-President of the
Royal Society

Overview of Fellows' election process



Professor Sir David Read FRS,
Biological Secretary and
Vice President of the
Royal Society

The process of electing Fellows of the Royal Society is highly thorough and results in the election each year of 44 Fellows, 8 Foreign Members and 1 Honorary Fellow, from a group of over 600 candidates who are proposed by the existing Fellowship.

Each candidate is considered on his or her own merits and can be proposed from any sector of the scientific community. Every effort is made to encourage nominations of women candidates and candidates from the emerging disciplines.

They are elected through a peer review process that culminates in a vote by existing Fellows. The main criterion for election as a Fellow is scientific excellence.

The names of the candidates remain confidential to the Fellowship until they are elected.

Fellows of the Royal Society are elected for life and designate themselves through the use of the letters FRS after their names.

"The Fellows' election process has evolved on the basis of experiences accrued over the years and appears to those of us who manage it to be as fair and transparent as we can possibly make it."

Professor Sir David Read FRS, Biological Secretary and Vice President of the Royal Society

Criteria for candidates

According to the Society's statutes, candidates for election to the Fellowship must have made 'a substantial contribution to the improvement of natural knowledge, including mathematics, engineering science and medical science'.

Unusually for a national academy, the Royal Society does not restrict its Fellowship to British nationals. The pool of candidates includes those who hold nationality of any Commonwealth country, or Irish nationality, as well as non-Commonwealth nationals resident in Commonwealth countries for more than three years immediately prior to being proposed. All others, including Commonwealth citizens who hold dual nationality with a non-Commonwealth country and who are not resident in a Commonwealth country are eligible for proposal as candidates for Foreign Membership.

Honorary Fellowship is intended for those who have given distinguished service to the cause of science, or who have brought great benefits to science, but who do not have the scientific achievements of the kind required of those who could be elected as Fellows or Foreign Members.



Professor Michael Cates FRS
Royal Society
Research Professor,
School of Physics,
University of Edinburgh

The nomination process explained



Professor Daniela Rhodes FRS

The Medical Research Council Laboratory of Molecular Biology, Division of Structural Studies, Cambridge

Nomination rules

Each candidate for the Fellowship or Foreign Membership must be nominated by two Fellows of the Royal Society, who sign a certificate of proposal. The certificate includes a statement of the principal grounds on which the proposal is being made. The certificate is available for inspection by other Fellows of the Royal Society until the day when and if the candidate is elected. All completed certificates of proposal must be received by the Royal Society by the annual closing date of 30 September. There is no limit to how many candidates may be proposed or seconded by a Fellow.

The proposing Fellows are responsible for informing the candidate that he or she has been nominated. The proposers must ensure, in consultation with the candidate, that all information relevant to the nomination is up to date.

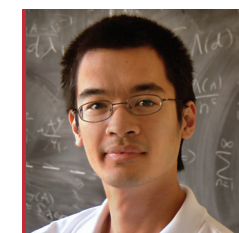
The number of new nominations made in any year is unlimited. Once nominated, candidates remain eligible for election for seven years. If not elected within this period, an individual may be proposed as a candidate again after a break of three years and then remains eligible for election for a period of three years. This three year cycle may be repeated without limit. In 2007 there were 635 candidates for election as Fellows. The Society does not provide details of the identities of nominated candidates to anybody outside the Fellowship, except those individuals consulted in confidence during the refereeing process.

Each candidate for Honorary Fellowship must be nominated by six Fellows, who also sign a certificate of proposal. Candidates for Honorary Fellowship remain eligible for election for a period of three years in the first instance.

Encouraging nominations to the Fellowship

The nominations process was made easier in 2001 by reducing from six to two the number of Fellows signatures required on a certificate of proposal. This change was introduced because it was felt that the larger number of signatures might discriminate against women and minority groups, such as those in new and emerging subjects or those in institutions and organisations with few existing Fellows.

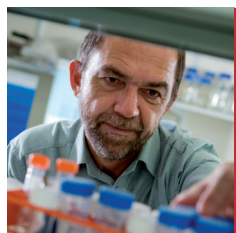
In addition, the President of the Royal Society periodically writes to Vice-Chancellors, and Chairs and Chief Executives of Research Councils, to encourage them to put forward names of potential candidates. Any suggestions generated through this route are considered before 30 September by the President, Vice-Presidents and one or more members of the Council of the Royal Society. These suggestions, if thought suitable, then follow the normal nomination process, with the proposing and seconding of a candidate by existing Fellows.



Professor Terence Chi-Shen Tao FRS

Professor of Mathematics, Department of Mathematics, University Of California, Los Angeles

The election process explained



Sir Alec Jeffreys FRS

Wolfson Research Professor of the Royal Society, Department of Genetics, University of Leicester

The election process is extremely rigorous and is based on the scientific system of peer review. The annual cycle begins after the closing deadline for nominations on 30 September and ends with a formal Admissions Day the following July.

An alphabetical list of all candidates, together with the names of the proposing and seconding Fellows and the statement of the main grounds for the proposal, is prepared after the closing deadline of 30 September. This list is circulated in strict confidence to all Fellows of the Royal Society.

The Council of the Royal Society oversees the generation of the list of the 44 strongest candidates for election for the Fellowship and 8 strongest candidates for the Foreign Membership in that year's cycle. Two Officers of the Royal Society (the Biological Sciences Secretary and the Physical Sciences Secretary) are responsible for the smooth running of this process, and the Council appoints ten subject area committees, known as Sectional Committees, to advise it about the selection of this list.

Role of Sectional Committees

Each Sectional Committee deals with a specific set of disciplines. Details of the subjects covered are listed on page 8. One third of the members of each Sectional Committee are replaced each year, such that no Fellow is a member for more than three consecutive years. This eliminates as far as possible the impact of any personal biases among members.

A chair is elected by each Sectional Committee, and normally serves for a period of up to two years. The identities of the chairs and members of the Sectional Committees are published annually in The Year Book of the Royal Society.

Candidates for the Fellowship are classified as Mainstream, Applied or General. At a meeting in November of the chairs of the Sectional Committees with the Biological Sciences Secretary and the Physical Sciences Secretary, each candidate is assigned to an appropriate category and to one or more of the Sectional Committees.

Mainstream Candidates are those who have been nominated primarily for their contributions to knowledge and understanding in science, engineering or medicine.

Applied candidates are those who have been nominated primarily for having applied scientific knowledge to the invention or development of new devices, constructions, products or processes, or to the advancements of human health, welfare or the environment.

General candidates are selected primarily on the basis of their wider contributions to science, engineering or medicine through leadership, organisation, scholarship or communication.

Candidates whose subject areas cross the boundaries of the Sectional Committees are considered by two or more

Sectional Committee 1
Pure and applied mathematics, computer science.

Sectional Committee 2
Astronomy and physics, including theoretical physics and applied physics

Sectional Committee 3
Chemistry, applied chemistry, theoretical chemistry.

Sectional Committee 4
Engineering, technology, instrumentation, materials science, experimental fluid dynamics.

Sectional Committee 5
Earth sciences and physical environmental sciences.

Sectional Committee 6
Biochemistry, structural biology and molecular cell biology.

Sectional Committee 7
Developmental biology, genetics (excluding population genetics), immunology and microbiology (except medical microbiology).

Sectional Committee 8
Anatomy, physiology and neurosciences.

Sectional Committee 9
Organismal, evolutionary and ecological science, including soils and agriculture.

Sectional Committee 10
Health and human sciences.

Committees, the membership of which is designed to reflect such situations.

Each candidate is considered by the relevant Sectional Committee on the basis of a full curriculum vitae, details of their research achievements, a list of all their scientific publications and a copy of their 20 best scientific papers.

The Sectional Committees meet initially in early January to make a preliminary assessment of the strength of the Mainstream and Applied candidates whom they have been asked to consider and to prepare a long-list. Typically fewer than half of the candidates considered at this stage make it on to the long-list. Each Sectional Committee then seeks references from individuals (who do not have to be Fellows) acquainted with the contributions of Mainstream and Applied candidates on the long-list.

General candidates are also considered at these meetings and a preliminary assessment of their strengths made. This information is forwarded to the Biological Sciences and Physical Sciences Secretaries for consideration. The Secretaries prepare a long-list of General candidates after receiving further advice about General candidates from the Sectional Committees and the other Vice-Presidents and members of the Council of the Royal Society. The Biological and Physical Sciences Secretaries then seek references from individuals (who do not have to be Fellows) acquainted with the contributions of the General candidates on the long-list.

Each Sectional Committee meets again in early March, when its members vote to produce a final short-list, with a ranking of the strength of the Mainstream and Applied candidates, to be submitted to the Council of the Royal Society. Each Sectional Committee also offers advice about General candidates based on the references received. The short-lists of the Mainstream and Applied candidates are then considered by Council at the end of March, alongside a short-list of General candidates produced by the Biological and Physical Sciences Secretaries, and the final list of 44 candidates to be Fellows and 8 candidates to be Foreign Members is drawn up.

This list is prepared on the basis of the strength of each candidate, irrespective of discipline. However, as a rough general guide, the regulations suggest that this list should 36 mainstream and joint candidates spread more or less evenly between the physical and biological sciences, and 8 candidates who are classified as General, Applied or jointly from both the physical and biological sciences.

Election and admission of new Fellows

The final list of candidates is confirmed by Council at its April meeting, and is then circulated in the form of a ballot sheet to all Fellows. Overall during the election cycle, over 100 Fellows plus 21 Council members, not to mention hundreds of referees, are involved in the process of producing the final list of names from the list of candidates.

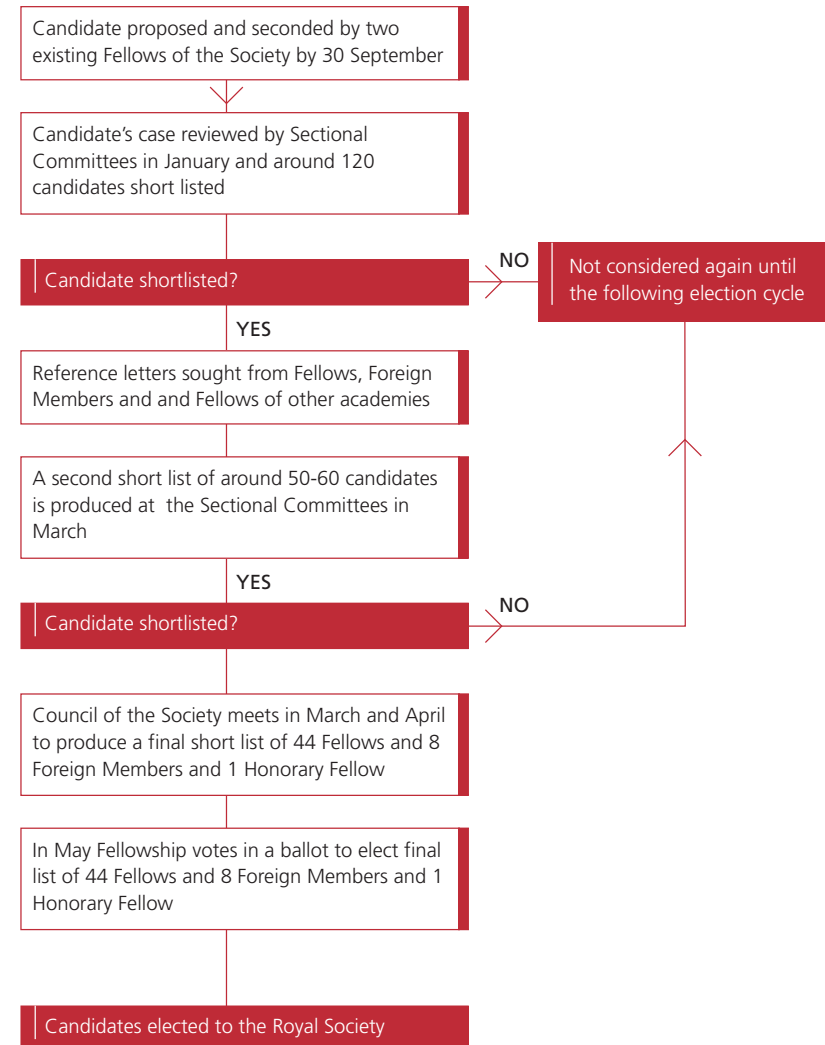
Flow chart of the election process



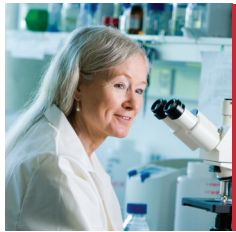
Professor Veronica van Heyningen FRS

Head of Medical and Developmental Genetics Section, Medical Research Council Human Genetics Unit, Western General Hospital, Edinburgh

Fellows attending the Annual Meeting for the Election of Fellows and Foreign Members in May vote and by secret ballot. Only Fellows attending the meeting are allowed to vote. A candidate is elected if he or she secures two-thirds of votes. Candidates do not attend the Annual Meeting. New Fellows are formally admitted to the Society at the formal Admissions Day ceremony in July, when they sign the Charter Book and the Obligation of the Fellows of the Royal Society.



Honorary Fellows



Professor Kay Davies CBE FRS

Dr Lee's Professor of
Anatomy at the
University of Oxford

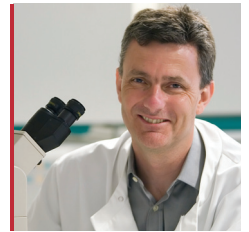
Individuals who are not eligible for election to the Fellowship in the conventional categories, but who are considered to have given distinguished service to the cause of science, or who have brought great benefits to science, may be eligible for election as Honorary Fellows. One Honorary Fellow may be elected each year.

The nomination and election process for Honorary Fellows is similar to that for Fellows, but with some important differences. At least six current Fellows are required to nominate a candidate for election as an Honorary Fellow. The Council of the Royal Society appoints a special committee to consider candidates for election as Honorary Fellows. The special committee advises Council about whether a candidate should be put forward to the vote at the Annual Meeting for the Election of Fellows and Foreign Members. A candidate is elected if he or she secures at least two-thirds of the votes at the meeting. A candidate remains eligible for election for three years from his or her first nomination, in the first instance.

Contact and further information

Further information is available from the Council and Fellowship Office at the Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG.

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The Royal Society is a Fellowship of 1400 outstanding individuals from all areas of science, engineering and medicine, who form a global scientific network of the highest calibre. The Fellowship is supported by a permanent staff of 130 with responsibility for the day-to-day management of the Society and its activities.

As we prepare for our 350th anniversary in 2010, we are working to achieve five strategic priorities:

- **Invest** in future scientific leaders and in innovation
- **Influence** policymaking with the best scientific advice
- **Invigorate** science and mathematics education
- **Increase** access to the best science internationally
- **Inspire** an interest in the joy, wonder and excitement of scientific discovery



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Founded in 1660, the Royal Society
is the independent scientific academy
of the UK, dedicated to promoting
excellence in science
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