

## **Action on Hearing Loss-Dunhill Medical Trust Fellowships**

### **Call and guidelines – 2021 scheme**

Action on Hearing Loss and the Dunhill Medical Trust are working together to fund early-career Fellowships in 2021. Their aim is to raise awareness of the importance of hearing research, and to increase the number of researchers working as independent scientists in the field in the UK.

#### **The importance of hearing research**

Hearing loss is a major public health issue, affecting over 12 million people in the UK – more than one out of every six people. Hearing loss is a growing problem in an ageing population, as much of this hearing loss is age-related (by the time a person is 60, there is a more than 50% chance that they will have some form of hearing loss) and it is predicted that by 2035, over 15.6 million people will be affected, placing a huge burden on society and the economy. Hearing loss can have a severe impact on people's quality of life and leads to isolation from friends and family. It is also associated with dementia, depression, and decreased physical wellbeing, and can hinder both education and employment.

Current medical interventions are largely limited to hearing aids and cochlear implants. While these devices benefit many, they are far from perfect, as they do not reproduce the clarity and richness of natural hearing and can perform poorly when there is a high level of background noise. There is an urgent need to improve existing technologies, and for new interventions to prevent hearing loss and restore natural hearing.

We also need to understand the fundamental mechanisms underlying the development of the auditory system, how it ages and the processes that lead to age-related hearing loss; and use this knowledge to develop treatments to reverse or prevent hearing loss. Since many of the processes underpinning the degeneration of the auditory system are shared with other neurodegenerative conditions, advances made in understanding the molecular basis of hearing loss are also likely to benefit other diseases related to ageing.

#### **Purpose of the Fellowship**

The aim of the Fellowship scheme is to help talented young researchers make the transition from a post-doctoral scientist towards becoming an independent investigator, able to lead their own programme of research, attract funding and build a new research team. In doing so, the scheme will build research capacity in hearing research, by supporting the early career development of the UK's most talented new investigators.

The Fellowship supports salary and project costs of up to £120,000 over 2 years. This allows Fellows to develop their own research interests and gather data needed to secure future funding, giving them the opportunity to demonstrate to future funders or employers that they are capable of independently leading a programme of research.

## **Call for applications**

We request proposals for research projects in the following areas:

### **1) Research to underpin the development of treatments for hearing disorders, including tinnitus**

Any research that underpins the development of treatments, including but not limited to medical devices, pharmacological treatments, genetic or cellular therapies, will be considered under this category.

Treatments should aim to prevent hearing loss, restore auditory function or silence tinnitus.

Examples of research topics included in this category:

- identifying the causes of hearing loss, including central auditory processing disorders
- improving understanding of the molecular and/or cellular changes associated with different types of hearing disorders
- improving the interface between a cochlear implant and the auditory nerve
- catalysing the development of novel medical devices to aid or restore auditory function
- contributing towards the development of therapies to prevent loss of auditory function
- identifying biological pathways that could be targeted to trigger the regeneration of damaged cell types in the auditory system
- advancing drug or gene-based approaches to restore hearing function or trigger cell regeneration
- advancing cell-based therapies to repair damage to the auditory system
- identifying the causes of tinnitus
- improving understanding of the biological basis of tinnitus
- contributing towards the development of treatments to silence or alleviate tinnitus

### **2) Research to improve how new treatments for hearing loss and tinnitus are developed and tested**

Any research that improves how new treatments are developed or tested is encouraged under this category.

*Improving measurement of auditory function or tinnitus*

Research to improve how hearing or tinnitus is measured or monitored:

- to improve diagnosis or prognosis
- to identify the type and location of damage underlying a person's hearing difficulty or tinnitus
- to provide new and robust measures for use as clinical trial endpoints to evaluate interventions
- to allow for patient stratification into clinical trials
- to help select the most appropriate treatment

Such measures include, but are not limited to, genetic, physiological, or behavioural approaches.

*Developing models of human hearing disorders, including tinnitus*

Research to develop models of human hearing disorders, including tinnitus, to allow for robust pre-clinical validation of treatments:

- *in vivo* animal models
- *in vitro* animal or human cellular models
- computer models of human hearing loss or tinnitus

**Applications with a focus on understanding the underpinning mechanisms of age-related hearing conditions, or how ageing affects the auditory system, are especially encouraged, and will be considered for joint funding with the Dunhill Medical Trust.**

### **Summary of the fellowship**

- **Value:** Up to £120,000
- **Duration:** usually 24 months
- **Eligibility:** The applicant should be an early career investigator who has the desire and potential to become an independent scientist in the field of hearing research. They must hold a PhD and can be based at any UK university or research institute, but must not be a permanent employee. The award should support progression towards an independent research career.

### **Additional notes for applicants**

- The applicant should be an early career investigator and not a permanent employee of the university or research institution
- The application should be written by the prospective Fellow, not the sponsor.
- The sponsor will be asked to comment on how they and the institution will facilitate and support the career development towards scientific independence of the applicant
- Projects must be defined pieces of research with clearly stated objectives, an experimental plan and expected outcomes
- Applications must explain how the project is focussed on outcomes that will contribute to benefitting people with hearing loss or tinnitus

- The remit of Action on Hearing Loss funding covers all aspects of hearing research which has the potential to benefit people with hearing loss or tinnitus
- The remit of the Dunhill Medical Trust includes research to understand the mechanisms of ageing and treating age-related diseases, including hearing loss
- Both Action on Hearing Loss and the Dunhill Medical Trust are members of the Association of Medical Research Charities and as such, funded projects are eligible to receive a contribution to their full economic costs via the [Charity Research Support Fund](#). This means that you should NOT include indirect costs in the application. Eligible costs can include salaries and direct project costs. As this funding stream is intended to support the career development of researchers, applications solely for capital equipment will not be considered
- The Dunhill Medical Trust is a signatory of the '[Concordat to support the career development of researchers](#)'. Applicants should be based at a research institute which has signed up to the Concordat, or which follows its principles.
- See the '*Action on Hearing Loss Fellowship guidance document*' for further information and help with completing the application form

### **Application and selection procedure:**

To submit a proposal, complete the Fellowship application form (available on the Action on Hearing Loss website) and **email** the completed application form as a **SINGLE attached MS Word document (not exceeding 5Mb** and with a filename in the format of SurnameApplicant1\_PA21.doc e.g., Smith\_PA21.doc) to **research@hearingloss.org.uk**

**All applications must be received by the 12<sup>th</sup> January 2021 (5pm).**

Eligible proposals will be reviewed by two/three external reviewers. These reviews and the original proposals will then be considered by our Future Leaders Review Panel\* who will rank the proposals and shortlist candidates for interview.

Interviews will take place in **May or June 2021** – we will confirm the date with applicants once it is finalized. Short-listed candidates will be invited for interview no less than 2 weeks before this date, and given further instructions for the interview then.

Following the interviews, the panel will make funding recommendations to Action on Hearing Loss and the Dunhill Medical Trust.

For further details:

**Telephone:** 020 3227 6159    **E-mail:** [fellowship@hearingloss.org.uk](mailto:fellowship@hearingloss.org.uk)

### **Timeline**

Full applications: 12 January 2021 (5pm)

Invitation to interviews issued: April/May 2021

Interview date: May/June 2021

Final decision: July 2021

\*Action on Hearing Loss Future Leaders review panel

- Professor Brian Moore, University of Cambridge (chair)

- Professor Jennifer Linden, University College London
- Dr Christian Füllgrabe, University of Nottingham
- Professor Andrea Streit, King's College London
- Dr William Sedley, Newcastle University
- Dr Mark Wallace, University of Nottingham
- Dr Dan Jagger, University College London
- Professor Walter Marcotti, University of Sheffield
- Professor Chris Plack, University of Manchester
- Dr Deborah Vickers, University of Cambridge
- Dr Morag Lewis, King's College London
- Panel members from the Dunhill Medical Trust Research Grants Committee to be confirmed

**2021 round**

