

## The Miranda Filmer Fund

Driving life-changing research into neuroendocrine cancer

Following an exceptional fundraising campaign and a number of deeply generous donations from philanthropists, the Filmer Family and Royal Free Charity are proud to formally establish the Miranda Filmer Fund for research into neuroendocrine cancer.

In the words of Miranda's consultant oncologist, Dr Daniel Krell, "Miranda was an inspirational patient, who continued to live life to its fullest right up until the very end. She exceeded all expectations for people diagnosed with aggressive neuroendocrine tumours, and can offer hope to future generations of patients."

Building on the £350,000 already raised through the appeal, we are delighted to share how we can change the research landscape for people diagnosed with neuroendocrine cancer. Together, we can contribute to the development of life-changing new treatments for those living with the most aggressive forms of the disease.

### Neuroendocrine tumour research at the Royal Free London

Many have never heard of neuroendocrine cancer. Often dubbed 'the quiet cancer' because it presents so late and advanced, it currently impacts over 15,000 people in the UK, and can affect anyone, of any gender, and at any age.

The Neuroendocrine Tumour Research Unit at the Royal Free London provides specialist treatment for people who have been diagnosed with this rare and little known cancer. The unit's multidisciplinary team works with clinicians and research staff in the UK and abroad to offer truly world-class care to patients. In 2010, the unit was the first UK centre to be awarded status as a European Centre of Excellence. Considered one of the world leaders in the field, the team have received international awards, and have led clinical trials which have changed patient care globally.



Fig 1: A Royal Free Charity funded researcher investigating a blood sample.

## Honouring Miranda's memory through pioneering research

There are many different kinds of neuroendocrine tumour, ranging from low grade neuroendocrine tumours to aggressive high grade neuroendocrine neoplasms. Where people diagnosed with low grade neuroendocrine tumours can live between eight and 16 years with the disease, those with high grade neuroendocrine neoplasms survive on average only seven months.

Miranda defied all the odds, living a rich and full life for several years following her diagnosis of high grade neuroendocrine neoplasms. Now the research funded in her memory will help clinicians to understand more about how this devastating type of tumour develops, with the hope of directing future clinical trials in this area, and opening up new treatment possibilities for patients.

### Stage one:

#### Understanding high grade neuroendocrine neoplasms

High grade neuroendocrine neoplasms are a mixed group of tumours, currently divided into two main subtypes: poorly differentiated neuroendocrine carcinoma (NEC), and well differentiated grade 3 neuroendocrine tumours (G3 NET). Currently, very little is known about the genetic makeup of these rare tumours and what differentiates them from one another. Understanding the differences between these high grade neuroendocrine neoplasms would enable clinicians to grasp both how they develop and how we can improve treatment options for patients.

Through the Miranda Filmer Fund, the Neuroendocrine Tumour Research Unit propose to grow their knowledge of these complex and highly aggressive tumours. The incredible funds raised to date will kickstart research in four key areas:

#### 1. Genetic profiling

The team will explore changes in the DNA of genes in patients with both NEC and G3 NET by analysing tissue samples in the UCL and Royal Free London biobank. This will enable them to identify common pathways and mechanisms through which these tumours may develop.

#### 2. Epigenetic profiling

They will investigate the changes that control which genes are switched on and off in patients with both NEC and G3 NET to identify common pathways and mechanisms which lead to tumour formation.

#### 3. Immune assessment

They will assess the immune related characteristics of high grade neuroendocrine neoplasms to establish whether these tumours might be sensitive to immunotherapy treatments. Such treatments switch on the patient's immune system allowing it to recognise cancer cells, which would otherwise remain hidden from immune cells. The immune system then stimulates the immune cells to destroy the cancer cells.

## 4. PET imaging

They will explore whether there is a correlation between the genetic and epigenetic characteristics of these tumours and their functional characteristics when using FDG and DOTATATE PET scans.

This research will be carried out in the UCL laboratories and clinical oncology department at the Royal Free Hospital. Cutting-edge work of this kind requires both top talent and significant resources. As a direct result of the extraordinary funds raised through the appeal to date, we have an exceptional clinical fellow lined up to lead this exciting work. The team aim to submit preliminary research data by November 2023 to present at an international conference in abstract form by March 2024.

### Stage two:

## Creating game-changing new therapies for people with NETs

Further funding would enable us to take the next vital step: bringing this research out of the lab and into clinical practice to help patients. With your vital support, we could recruit a second clinical fellow to expand the remit of the research. The team could then start to construct predictive testing models to identify both targeted therapies and immunotherapies which could be used to treat neuroendocrine tumours. They would test these novel therapies on:

### 1. Existing models such as those developed by CURESPONSE and VIVAN

If successfully funded, the team could adapt existing models to mimic the molecular profile of tumours which they have identified to be common in high grade neuroendocrine neoplasms, and test the effectiveness of novel therapies directly in these models.

### 2. Novel neuroendocrine carcinoma cell lines developed in house

The team could also aim to develop the first ever neuroendocrine carcinoma cell lines which would be used to investigate the characteristics of these cells and to test novel therapies.

Further support would enable them to use the data they acquire to set up clinical trials through the RFL NET clinic to deliver novel therapies directly to patients. This would enable them to establish the impact of these new treatments on both cancer progression and cancer survival, helping to expand treatment options for patients and support them to live for longer.

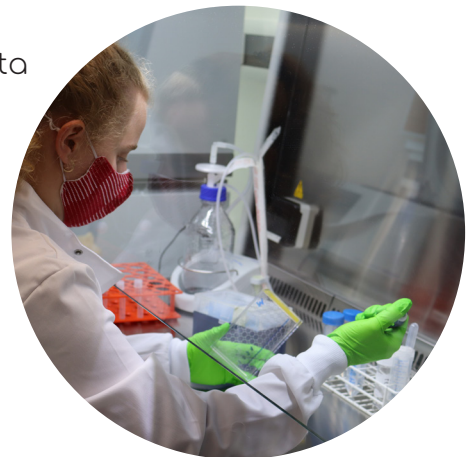


Fig 2: A Royal Free Charity-funded researcher investigating a blood sample in the laboratory.

## Leveraging our collective impact

Collaboration is at the heart of all world-leading research. The Neuroendocrine Tumour Research Unit intend to work closely with other NET centres of excellence, so that the clinical trials they develop as a result of their laboratory-based research can be delivered at other centres, helping to increase the number of patients able to benefit from their landmark research findings.

They will also use their data as the basis for further applications to major grant funders to maximise the impact of the Miranda Filmer Fund. Your early-stage support in this pioneering research will help to provide the evidence and data required to attract and draw on additional funding streams, thereby allowing the team to expand this research – both in the laboratory and in clinical practice.

Together, we can change the outlook for patients diagnosed with the most aggressive forms of neuroendocrine cancer, improving clinical understanding of the condition, and offering hope of new life-changing new treatments to the patients of tomorrow.

## Thank you

To discuss your support, please contact:  
[fundraising@royalfreecharity.org](mailto:fundraising@royalfreecharity.org)  
or call us on 020 7317 7772

Miranda Filmer Fund  
**ROYAL FREE**  
**CHARITY**