

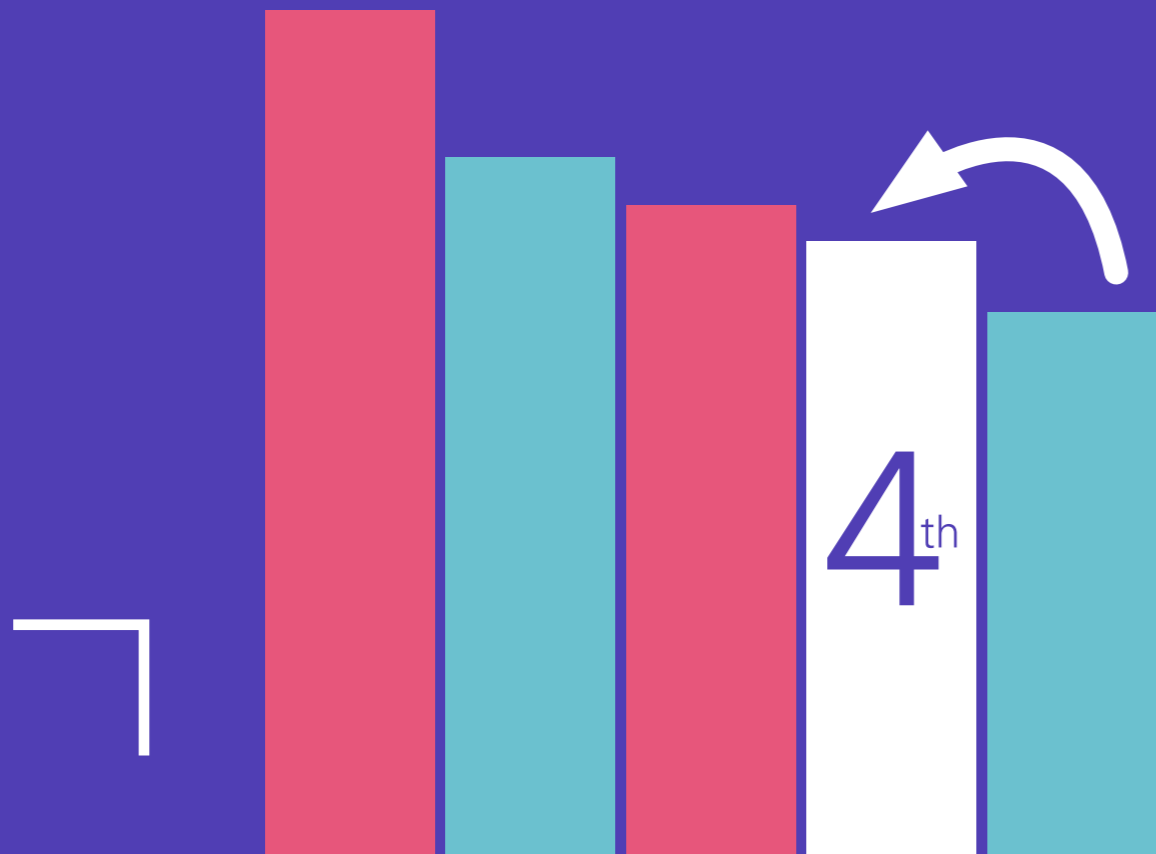
Pancreatic
Cancer
UK



**Taking on
research
to change
the future**

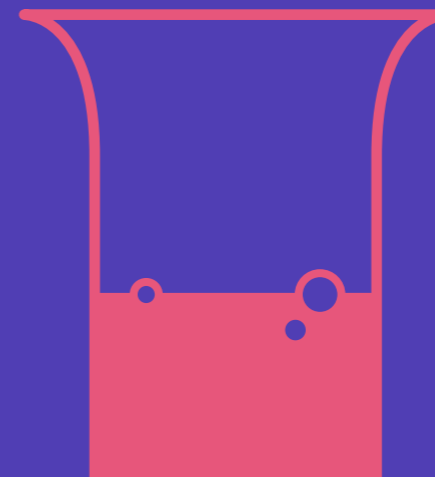
Five year research strategy

**By 2026,
pancreatic cancer will
be the fourth biggest
cancer killer in the UK,
unless research funding
is dramatically increased.**



**Pancreatic cancer is the
5th biggest cancer killer
yet gets just**

1.4%



Our Vision



Over the next five years our ambition is to double the UK survival rate for people with pancreatic cancer – making the UK survival rate among the best in the world.

Over the next five years we want to invest more in pancreatic cancer research, and champion an increase in UK-wide funding to £25 million a year.

This research strategy lays out how, over the next five years, we will work with world leading researchers and with people affected by pancreatic cancer, who know how tough the fight can be, to fund research that will transform and save lives.

Pancreatic cancer is a tough one, but we're taking it on. Together.

Foreword

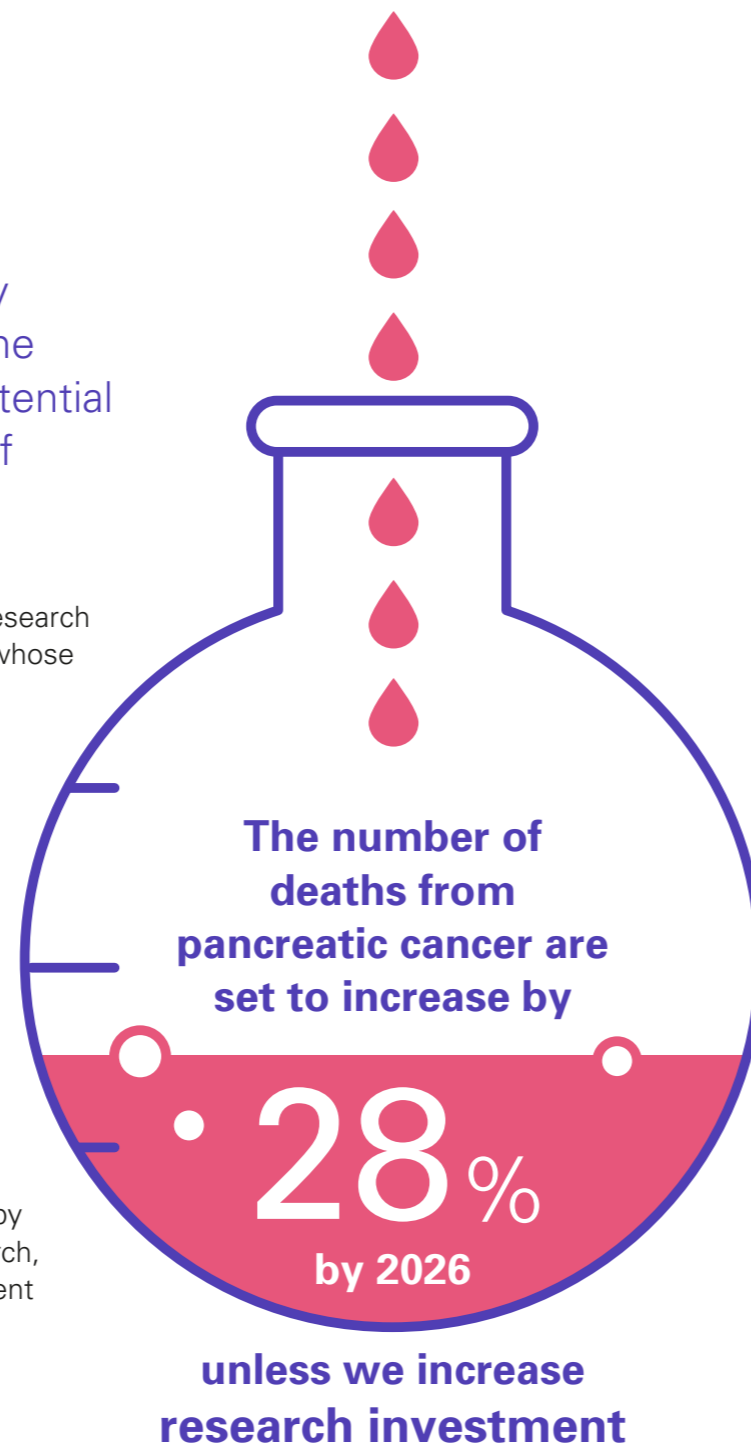
Spending money on research is easy.

What is difficult is ensuring that the money that we spend on research is invested in the projects and researchers with the most potential to make a positive difference to the lives of people with pancreatic cancer.

As a researcher, supporting the highest quality research projects is incredibly important to me. As a son whose mother lost her battle with pancreatic cancer, ensuring that every penny works towards patients' priorities is essential.

Pancreatic Cancer UK works with the support of world-leading scientists and people affected by pancreatic cancer to make their investment count. They have a strong track record of funding the brightest and best researchers, and of making research breakthroughs. Scientists respect them and eagerly seek their funding and support.

They also have plans and programmes in place to make sure that the voices of people affected by pancreatic cancer are heard when funding research, and work with others to increase the amount spent on the condition UK-wide.



This is why I'm proud to be the Chair of Pancreatic Cancer UK's Scientific Advisory Board. I think that Pancreatic Cancer UK is the organisation that will make the differences that we so desperately need to see and have waited too long for.

We invest in areas of research where improvement is most needed, support the best research, and the right kind of scientists.

This research strategy outlines our priorities for the next five years, and will act as a guide for us to continue investing in research that will make the most impact.

The next five years are an incredibly important time for pancreatic cancer research: we are on the cusp of great new discoveries; we have the potential to explore treatments that we have never been able to before; and we have the opportunity to dramatically improve outcomes for people diagnosed and to save lives.

It is only through being bold that we will realise this potential – through funding innovative research, bringing scientists together, involving people affected by the condition, and investing in specific areas, that we can have the biggest impact.

We have bold ambitions for the next five years. Pancreatic cancer is tough – but we're tougher, and we are taking it on.

Professor Stephen Smith,
Chair of Pancreatic Cancer UK's
Scientific Advisory Board



Areas of research: how we're taking it on



In 2016, following the launch of our new organisational strategy, we undertook a comprehensive study of pancreatic cancer research in the UK and talked with world-class researchers and people affected by pancreatic cancer.

Through this, we identified the areas that most urgently need addressing through research and identified ways that we can work to make our money stretch further and increase the amount spent on pancreatic cancer research in this country.

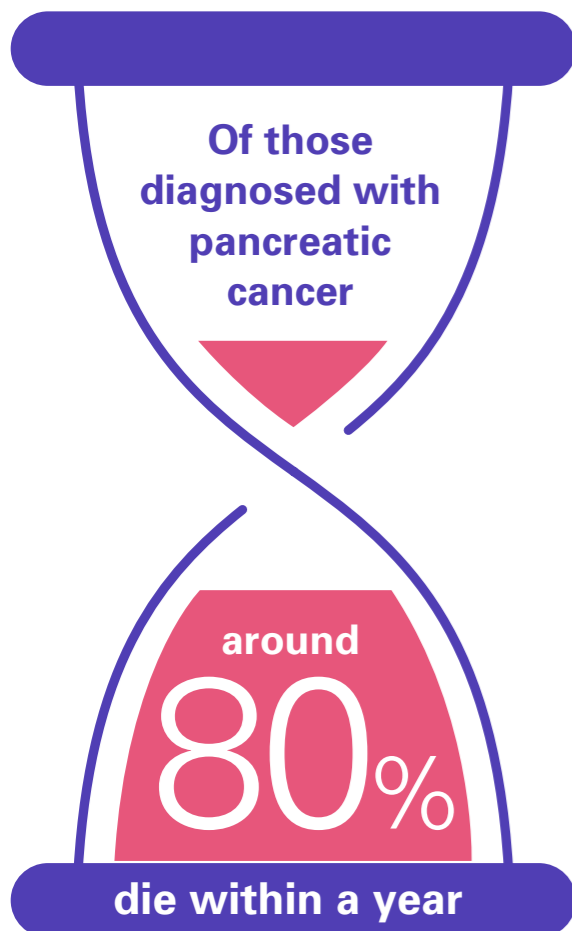
We identified the areas of most importance for research as:

- 1 ▶ Improving diagnosis
- 2 ▶ Discovering new treatments
- 3 ▶ Medicine personalised to you
- 4 ▶ Getting you the best treatment and care

Only by focusing on each of these four areas of research, can we make real progress for people affected by pancreatic cancer.

1 ▶ Improving diagnosis

Pancreatic cancer is tough to diagnose.



Diagnosis of pancreatic cancer can take a long time, often with many visits to the doctors and possible misdiagnoses along the way.

Around 80% of pancreatic cancer patients are not diagnosed until the cancer is at an advanced stage.

At this late stage, surgery is usually not possible – and this is the only known treatment that has the potential to cure the disease. This means that around 80% of people are diagnosed too late to have the chance of being cured.

Not only do we need to have the tools and knowledge to diagnose people at an earlier stage, but we also need to make the diagnosis process faster so that we don't waste any precious time in moving people onto potentially life-saving surgery or other treatments.

We will dedicate funding into improving early and rapid diagnosis to drive this change.

2 ▶ Discovering new treatments

Pancreatic cancer is tough to treat.



Currently surgery is the only way that pancreatic cancer can potentially be cured, yet only 8% of people with pancreatic cancer receive this treatment.

Existing drugs for the condition often only provide small benefits in terms of survival outcomes, and while we have seen new drugs that have given families more time together, there haven't been any dramatically significant advances in decades.

Other cancers have seen great progress in the development of new drugs and new types of treatment that can substantially improve chances of survival – we desperately need to see the same in pancreatic cancer.

There are promising areas of research that could deliver the breakthroughs in new treatments that we're hoping for. This research needs funding to progress and deliver these much needed treatments.

We will fund research that develops new treatments so that people with pancreatic cancer have more options, improved outcomes and better chances of survival.

Dr John Nathan, lay member of Pancreatic Cancer UK's Scientific Advisory Board

I fully expected that I would die from this disease.

I am both surprised and grateful that I have beaten the odds, but I feel immensely frustrated that so little progress has been made whilst so many other cancers have shown amazing improvements in management and prognosis.

I now am beginning to understand the reasons for this but this makes me even more determined that answers be found to change these figures.

Issues connected with early diagnosis are still really important in that surgery is likely to remain the only curative treatment for some time to come. There are signs that earlier and more

efficient investigations will lead to earlier diagnosis. Like some other cancers, pre-treatment with chemo-radiotherapy might both improve prognosis, but also make some cancers operable and potentially curable.

New insights relating to genomics could also hold the key to personalising treatments for patients. This could ensure people are getting the best possible treatment and living as long as they can.

Funding of research is vital in order to gain knowledge to overcome this disease. People are always surprised that little progress has been made in the last 45 years and need to be informed that research is going to be the way of effecting change.

“

There are signs that earlier and more efficient investigations will lead to earlier diagnosis.

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3 › Medicine personalised to you

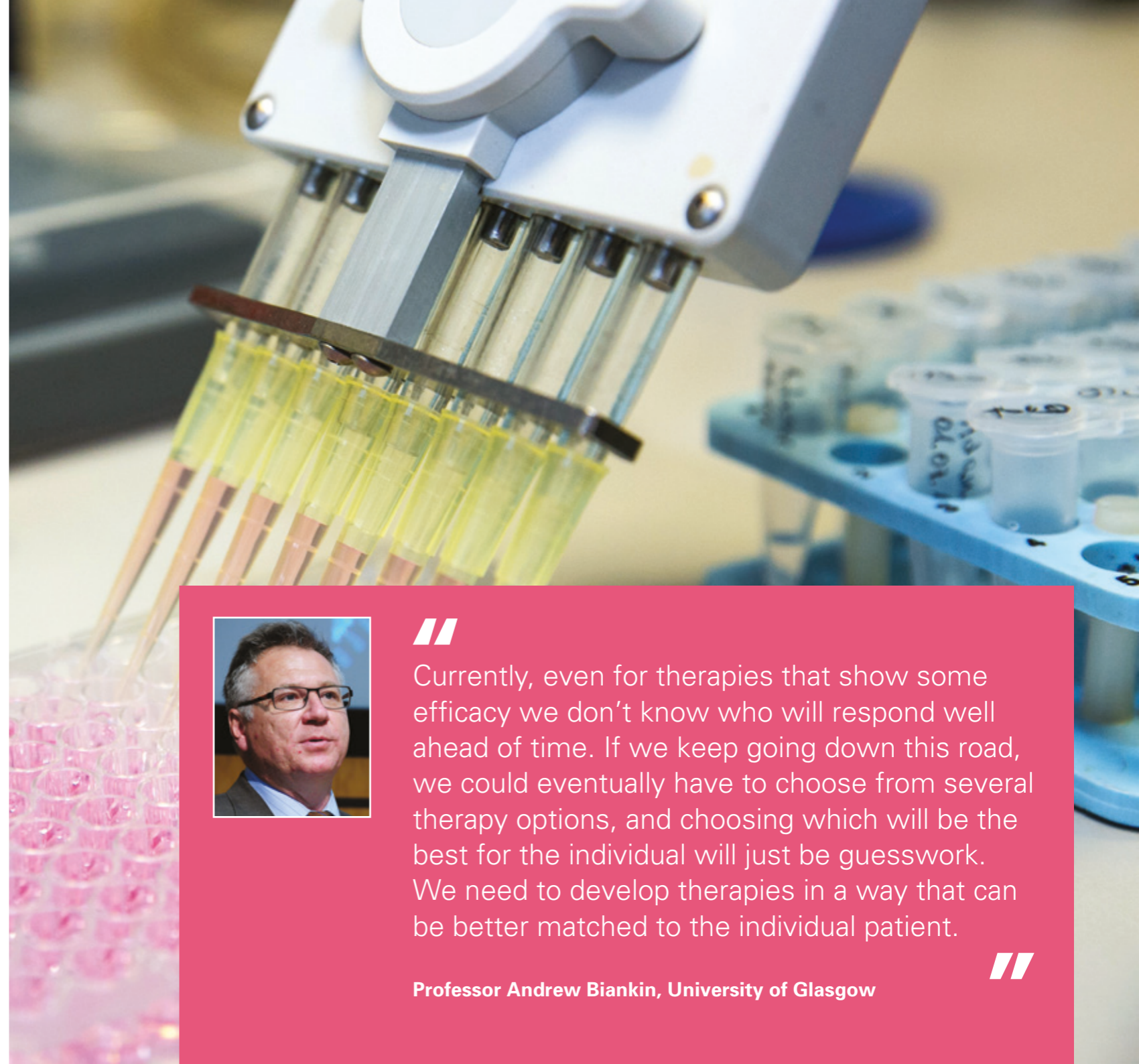
Pancreatic cancer is tough to research.

We know that pancreatic cancer is not the same in everyone, and so every patient deserves treatments that reflect that.

We need to move forward to a position where patients only receive treatments that are most likely to work based on the type of pancreatic cancer they have. This will give everyone the best chance of survival, without going through unnecessary treatment.

We think that the key to improving treatment is further investigation of the different types of pancreatic cancer – and, importantly, identifying each type and finding ways to treat the specific type in each person.

We will fund research that will bring us closer to matching the right treatment with each person.



Currently, even for therapies that show some efficacy we don't know who will respond well ahead of time. If we keep going down this road, we could eventually have to choose from several therapy options, and choosing which will be the best for the individual will just be guesswork. We need to develop therapies in a way that can be better matched to the individual patient.



Professor Andrew Biankin, University of Glasgow

4 ▶ Getting you the best treatment and care

Pancreatic cancer is tough to survive.



To improve the survival rate of people with pancreatic cancer, and lengthen and improve lives, we need to ensure that everyone gets the absolute best treatment and care.

This may be different for everyone, but we will work to research and understand what the best care looks like and ensure that hospitals and other healthcare environments deliver that.

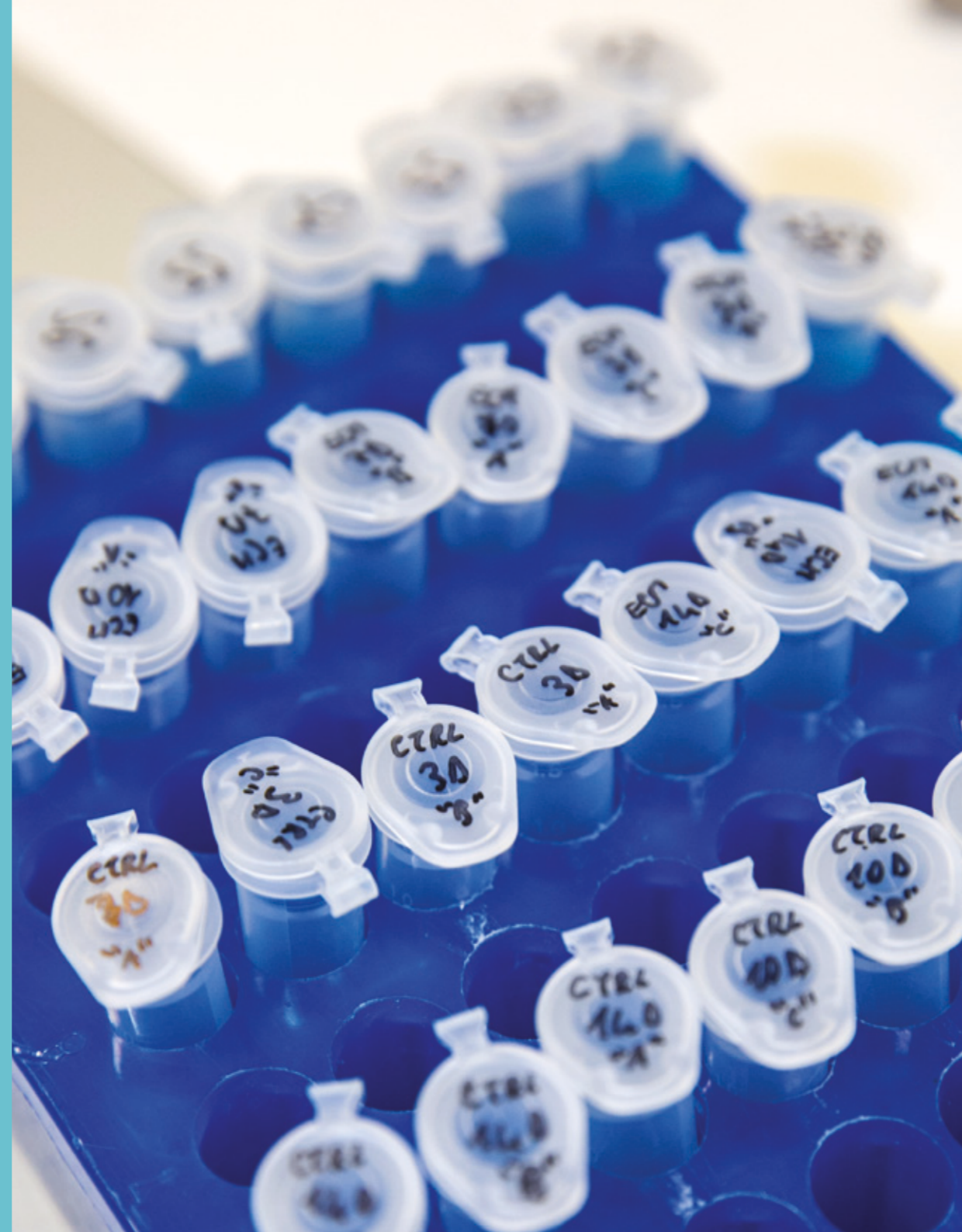


I believe that everyone deserves the best care and treatment. Whether a patient gets the all clear or not, it's important that everyone gets the best quality of life available regardless of how long this might be. Good care and treatment gives us the dignity anyone should expect.

Paul Matherick, Survivor



How are we going to do this?



Pancreatic cancer is a tough one but we're taking it on. We have a best-practice approach to supporting research that makes the most of our funding and works to get others to invest too.

Our research is ground breaking, and will continue to be so with our new strategy, which will target our research funding to get the most for our money.

Our strategy will bring together researchers and people affected by pancreatic cancer to make the most difference.

We are committed to securing an increase in the amount spent on pancreatic cancer research in the UK by all funders, with an ambition to see the annual spend at £25 million per year by 2022.

The five key aspects of our research programme that will help us lead the way towards breakthroughs are:

- 1 ▶ Supporting innovative research
- 2 ▶ Supporting our Future Leaders in research
- 3 ▶ Influencing others to increase funding
- 4 ▶ Bringing researchers together
- 5 ▶ Involving people affected by pancreatic cancer in our research programme

1 ▶ Supporting innovative research

There's been very little progress in treating pancreatic cancer in decades – it's time to try something new.

We can't predict where the next breakthroughs in research are going to come from and sometimes breakthroughs come from unexpected or unusual avenues. Sometimes new approaches and ideas are needed to solve a problem.

This is why we'll be funding innovative and exciting research, balanced with funding research in more traditional avenues. We will fund this innovative research, encouraging new ideas from other areas, directly through our Research Innovation Fund.

In order to ensure that patients and families are receiving the absolute best treatment and care, as well as stimulating new approaches for tackling pancreatic cancer in the lab we also need to encourage innovation in the healthcare setting.

We will address the biggest issues and challenges that patients face today, through our Clinical Pioneer Awards.



Professor Christopher Heeschen, Barts Cancer Institute

Over the past two years since we moved our laboratory from Madrid to London, Pancreatic Cancer UK has already supported two projects in our group; both of them were based on important technological innovations.

One of these Research Innovation Fund awards enabled us to advance our ability to isolate cancer stem cells from the blood of patients. For the first time, these so-called 'liquid biopsies' give us non-invasive access to precious viable biological material from patients with advanced pancreatic cancer.

Pancreatic Cancer UK's funding was extremely important for us as it is notoriously difficult to secure financial resources for high-risk projects. Both projects have been crucial for securing large and programmatic funding support. It is important that funding streams for innovative research projects are



In my opinion, a healthy balance of incremental versus high-risk innovative research projects bears the greatest potential to significantly advance pancreatic cancer research into the clinic.



made available, but in reality, these opportunities are rather sparse. Therefore, it is very important that Pancreatic Cancer UK continues following their distinct strategy and primarily supports high-risk, potential high-gain projects.

In my opinion, a healthy balance of incremental versus high-risk innovative research projects bears the greatest potential to significantly advance pancreatic cancer research into the clinic. While there is a risk of failure, there is also great potential to discover the unexpected.

2 ▶ Supporting our Future Leaders in research

We know that taking on
pancreatic cancer isn't going
to be a short-term battle.



We think that to make sustainable improvements to the lives of people with pancreatic cancer we need to train our Professors of the future, now. We call them our Future Leaders.

By supporting researchers at different stages of their careers, we support new and creative ideas to come to fruition, and ensure that the best researchers are ready to make the difference that we need in years to come, as well as right now.

We will attract new researchers into pancreatic cancer research. We will fund excellent research and support the best and brightest young minds of the future.

We will ensure that we can continue to fund world-leading pancreatic cancer research for as long as it takes.

Dr Jo Tod, University of Southampton

Funding from Pancreatic Cancer UK at an early stage of my research career was fundamental in allowing me to establish independent research projects and I am very grateful to have been given that opportunity.

Pancreatic Cancer UK has supported me from the beginning of my research journey and continues to do so. My 'Future Leader' project involved leading a group of other junior clinical researchers, from across Europe, to identify 'long survivors' of pancreatic cancer in order to study their tumours in more detail to ascertain biological markers within those tumours that promote survival.

// Pancreatic Cancer UK has supported me from the beginning of my research journey and continues to do so. //

In addition to my ongoing clinical training in gastroenterology, I continue to work in pancreatic cancer research and new pancreatic neuroendocrine tumour research projects.

Over the last 6 years, I have generated a pancreatic tissue bank at Southampton Hospital (consenting all patients undergoing pancreatic resection) and have supervised a full-time scientist in the lab, in addition to medical students and junior doctors who want to gain research experience.

Funding from Pancreatic Cancer UK has helped enable me to apply for further research grants - they acted as my 'sponsor' in applying for a £50,000 Grand Charity Medical Research Grant to fund a further research project to study mechanisms of tumour spread in pancreatic cancer.

It's fantastic that Pancreatic Cancer UK is focusing on funding early career researchers through the Future Leaders programme. Funding opportunities to early career researchers are limited and without the support of Pancreatic Cancer UK I would not have been able to undertake the research that I have.

3 > Influencing others to increase funding

We are taking on pancreatic cancer, but we can't do it alone.

We need other funders to put more investment into pancreatic cancer research. Pancreatic cancer is the fifth biggest cancer killer, and yet receives only 1.4% of cancer research funding in the UK – this needs to change.

This is a cancer that has been underfunded and neglected for too long. We're calling for at least £25 million to be spent on research into pancreatic cancer by funders in the UK every year by 2022.

We will work tirelessly to make the case for increased investment in pancreatic cancer research, and to show how research spending could improve diagnosis, provide treatments that give people more time with their loved ones, and save many more lives.

4 › Bringing researchers together

Research outputs are more imaginative, bolder and can happen faster when researchers collaborate.

This is why we'll work to bring together pancreatic cancer researchers in the UK into a virtual network, so that discussing ideas and working on projects is easier and researchers can focus on the real challenges that will make a difference.

Collaboration between some of the best minds in the country will result in new ideas, new research projects, and new hope for the progress that people with pancreatic cancer need to see.

We will support researchers to make more progress than they could do alone.

Image supplied with the kind permission of Barts Cancer Institute



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Large-scale national and international collaboration is essential when dealing with diseases, such as pancreatic cancer. For example, for biomarker discovery and validation programs, large numbers of samples from different patients are required. Collaboration between specialist centres is by far the easiest and quickest way to achieve the samples necessary for robust studies.

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**Professor Eithne Costello,
University of Liverpool**

5 ▶ Involving people affected by pancreatic cancer in our research programme

The involvement of people affected by pancreatic cancer is crucial to every stage of our research programme.



They help to guide and steer our priorities for research and the projects that we should support.

The priority areas in this strategy have been decided by people affected by pancreatic cancer; the projects that we fund are selected by people affected in partnership with top scientists; and people affected tell us what issues are the most important to them and where we should focus our efforts.

Without the contribution and direct support of people affected by pancreatic cancer, we wouldn't be as confident that we can make the progress needed. And we are confident. Pancreatic cancer is a tough one but we're taking it on. Together.

CASE STUDY

Catherine McGrath, lay member of Pancreatic Cancer UK's Scientific Advisory Board

I became aware of Pancreatic Cancer UK in 2013 when my dad was diagnosed with stage 4 metastatic pancreatic cancer.

I knew nothing about pancreatic cancer and what I learnt left me feeling hopeless. My dad died nine weeks after diagnosis. After my dad's death, I decided I wanted to ensure future patients and carers would not suffer my experience. I wanted to give patients and carers hope.

I joined the Scientific Advisory Board in 2014 after seeing an advertisement for lay members. I am honoured to be

a part of Pancreatic Cancer UK's aim to improve survival outcomes and improve treatment options, not only through funding research but also through political engagement.

Not only does my remit as a lay member increase the transparency of the Scientific Advisory Board's funding decisions, but also more significantly, I ensure that the views and interests of the patient and carer community are considered during the grant allocation process.

Being a part of the research programme and having this opportunity to contribute to a brighter future for pancreatic cancer patients and carers has brought me a lot of personal fulfilment. And, given that I am now under regular review following the discovery of a pancreatic intraductal papillary mucinous neoplasm (IPMN) of my side duct branch, it has given me personal hope for the future.

One day, the breakthrough will happen and I will be proud to have played a small part in that and I hope my dad would be proud too.



We need your help

Over the next five years through our research programme we will work with world-leading researchers and with people affected by pancreatic cancer who know how tough the fight can be, to fund research that will transform and save lives.

We have the expertise and ideas. We have the blueprints for making change. We have the opportunity to change the future of pancreatic cancer, now.

But we simply won't be able to make the breakthroughs that we need without your support.

Now is our chance to change the future for the people affected by this tough disease. But we can only do it with your help. We need your support today to help fund the breakthroughs which will transform diagnosis and treatment and save lives.

[Please go to pancreaticcancer.org.uk/donate](https://pancreaticcancer.org.uk/donate)

We can change the future now, but only with your help.

Acknowledgements

We developed this strategy by consulting widely across the pancreatic cancer research and healthcare community, and with our supporters. We are hugely grateful for the time and insight from those who participated. Their invaluable contributions have helped to shape our research strategy and ambition. We would like to thank everyone who contributed.

References for all data used in our research strategy can be found at pancreaticcancer.org.uk/researchstrategy



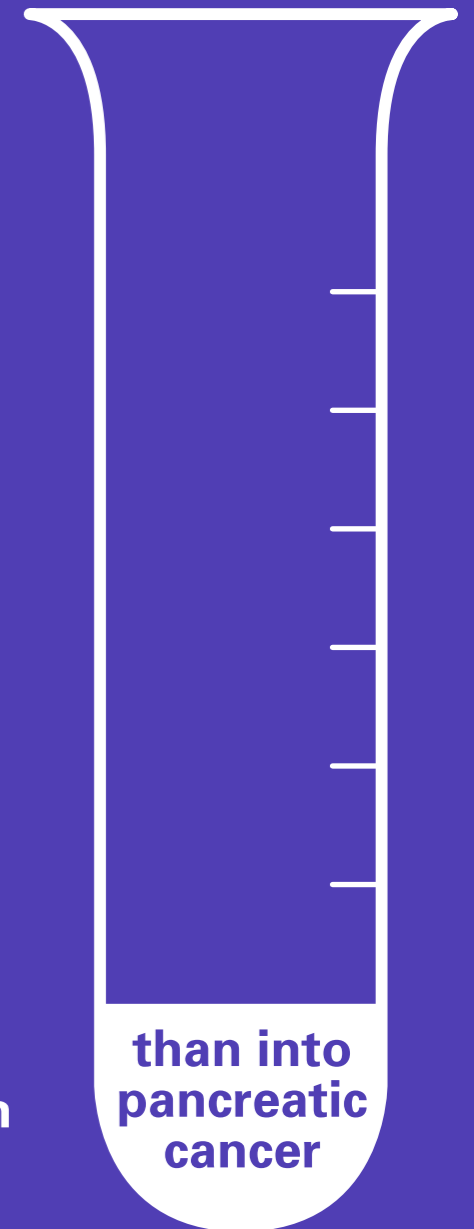
My father died forty years ago from pancreatic cancer. He was an engineer and inventor and would have been amazed by the progress in technology and healthcare since his death. While he would marvel at this progress, he would be shocked to learn that the treatment for pancreatic cancer is largely unchanged since his death; and so is the survival rate. He can't do anything about it – but I can, and so can you.



Simon Collins,
Development Fund Board



has been invested
into research for each
of today's 4 biggest
cancer killers





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