The Paul O’Gorman Leukaemia Research Centre is part of the University of Glasgow’s Institute of Cancer Sciences. The Centre was officially opened on the 22nd of May 2008 by Dr Richard Rockefeller.

It was built after a fundraising drive by the University of Glasgow in collaboration with Leukaemia & Lymphoma Research (now Blood Cancer UK), which saw more than £2.6 million raised in six years, through the commitment and generosity of more than 1800 donors and supporters.

The facility is state of the art and incorporates the latest research technologies required to perform basic, translational and clinical research. The Centre also benefits from close interactions with the Beatson Institute for Cancer Research and clinical departments of the Beatson West of Scotland Cancer Centre.

The major focus of the Centre is the haemopoietic (blood) stem cell which is weakened to cause many different forms of leukaemia.

**Update from Director**

**Mhairi Copland**

November 2020

2020 has been a strange and often difficult year for most people. We have all had to adapt our lives, our way of working, and adjust to limited socialising with family and friends.

Our aim is to perform basic research to identify novel therapeutic targets for leukaemia and translate our laboratory findings into new effective medicines for patients.

This has been particularly difficult for blood cancer patients, many of whom have had to shield and take additional precautions since March; our thoughts are with them.

When the first lockdown came along in March, POG was closed from end of March until mid-July, with many staffed furloughed and some going to assist with the fight against COVID-19 by working in the Glasgow Lighthouse Lab. Happily, the lab is open again, although we continue to operate a shift system in order to maintain social distancing, with some staff continuing to work from home.

Understandably, there has been a huge reduction in the donations we have received through fundraising activity, with most 2020 events cancelled. This has a big impact on the research we are able to do, in terms of funding both staff and equipment. We are not alone in this and all Cancer/Leukaemia charities face similar challenges.

However, despite the ongoing difficulties and uncertainty, we have seen many highlights at POG over the last 12 months. I am delighted to let you know that Helen Wheadon has been promoted to Professor, Vignir Helgason to Reader and Kristina Krischner to Lecturer. The TASTER clinical trial for patients with treatment-resistant chronic myeloid leukaemia (CML) has opened. We have received in excess of £2 million in funding with major grants from Cancer Research UK, Blood Cancer UK, Cure Leukaemia and MRC.

We have also benefitted from the endowments bequeathed by the late Professor Tessa Holyoake and Joan Snodgrass, and both these awards are benefitting our early career researchers and PhD students.

With the hope of a COVID-19 vaccine now on the horizon, we aim to start 2021 with new ideas and enthusiasm for both our research and to help support our fundraisers. I’d like to thank all our fundraisers for their support over the years and look forward to meeting and working with you again soon.

Please consider getting involved in one of our virtual fundraising activities in the coming months or let us know if you have ideas of your own.

Wishing everyone a happy, healthy and peaceful Festive Season.

Take care and stay safe

Mhairi

Professor Mhairi Copland
My ambition is to transform the quality of healthcare in developing countries. Whilst advances in medicine have created several solutions currently used in the developed world, there is an evident gap in addressing similar issues in low income countries. My hope is to equip individuals within those communities with necessary skills to address the existing healthcare problems.

This has taken shape through my work with GOVIRAL, which is a social enterprise founded by UofG alumna Jisla van der Reest and Ryan Geraya. GOVIRAL aims to reduce the prevalence of hepatitis B within the Philippines by increasing awareness, advocacy and access to treatment. Working with GOVIRAL has given me the opportunity to apply some of the scientific skills I’m developing through my PhD, whilst seeing first-hand how a social enterprise can map out effective solutions to address healthcare concerns and navigate existing political and economic issues. In the long run, my hope is to continue identifying sustainable solutions to healthcare issues whilst identifying ways to equip individuals within those communities with necessary skills to make a living.

For World Cancer Day and Women in Science Day, the work of two of our amazing researchers, Professor Mhairi Copland and Dr Alison Michie was highlighted in a *Bloodwise campaign (*now known as Blood Cancer UK)
Dr Kristina Kirschner received a reagent grant from ArcherDX for targeted sequencing of clonal haemopoiesis mutations.

CR-UK Programme Foundation Award - Dr Guðmundur Vigfússon - Title: "Targeting Autophagy and Aberrant Metabolism of Leukaemic Stem Cells". Currently, leukaemic stem cells in chronic myeloid leukaemia are resistant to therapy. Our previous work has highlighted two cellular processes, autophagy and mitochondrial metabolism, as critical for the survival of chronic myeloid leukaemia stem cells.

The main aims of the CR-UK Programme Foundation Award is to further investigate how we can inhibit these processes and test novel drug that we have identified through drug screening or obtained through collaboration with industry. Award: £1.35M https://www.cancerresearchuk.org/funding-for-researchers/our-funding-schemes/ programme-foundation-awards

Dr Kristina Kirschner was awarded a Springboard award from the Academy of Medical Sciences – "Elucidating the role of Notch signalling in secondary senescence" Cure Leukaemia Trials Acceleration Programme – Professor Mhairi Copland has successfully led the haematopoiesis clinical trials team at the Beatson West of Scotland Cancer Centre in a bid to secure funding for a research nurse for 3 years to help fast-track early phase clinical trials in blood cancers. Award: £150,000.

Endowment Awards:
Professor Tessa Holyoake Endowment Fund - Dr. Ya-Ching Hsieh (Dr Kristina Kirschner’s group) was awarded the Professor Tessa Holyoake Endowment Fund Small Research Grant 2019 for her project “Single cell transcriptome and protein BM niche profiling with CITE-seq in CML disease progression”.

Laura Monaghan (Dr Xu Huang’s group) has been awarded the Professor Tessa Holyoake Endowment Small Grant Award for 2020. Her successful project is titled “Use of SLAM-seq to profile direct transcript changes following pharmacological inhibition of KDM4A in human AML cells”.

Joan Snodgrass Bequest - Through the generosity of the late Joan Snodgrass and her family, the Paul O’Gorman Leukaemia Research Centre are pleased to announce the development of the Joan Snodgrass Bequest PhD studentship. This studentship will provide a promising science graduate the opportunity to carry out a programme of leukaemia research within our state-of-the-art facilities. This year the PhD studentship was awarded to Dr Alison Michie’s laboratory whose main research focus is chronic lymphocytic leukaemia (CLL) and PhD student Jamie Lees starts in January 2021.

Jamie’s PhD is entitled "Exploiting the role of individual members of the FOXO transcription factor family: do they differentially regulate CLL survival, proliferation and chemosensitivity?". The aim of this Joan Snodgrass funded project is to elucidate the molecular mechanisms that regulate individual FOXO family members, providing fundamental information regarding their regulation in Chronic Lymphocytic Leukaemia cells, and potentially highlight novel therapeutic avenues. Pros are Dr Alison Michie and Dr Xu Huang.

Joan Snodgrass Bequest - The Joan Snodgrass Bequest also generated funds to support a small project, which we are delighted to announce was awarded to Dr Jodie Hay to investigate the regulation of the CLL tumour microenvironment upon modulation of FOXO1 activity.

Other News:
Many congratulations to Mike Moles PhD who passed his viva recently. Mike’s supervisor was Dr Alison Michie and his PhD entitled “Investigating mTORC2/AKT-mediated regulation of FOXO1: a novel therapeutic strategy in chronic lymphocytic leukaemia.” was funded by the Forgie – Friends of Paul O’Gorman PhD studentship. Mike wished to give a special mention and thank you to Hugh “Shuggie” Forgie, for whom this PhD studentship was named. Hugh, together with his wife Mags, raised a tremendous amount of money for POG-LRC, by cycling from Glasgow to Malaga, which provided the funding for this PhD studentship specialising in CLL research. Sadly, Hugh did not quite make it through to see the finished product, dying peacefully of CLL at the Beatson on Saturday 5th September 2020. He will be missed by all who knew him. Thank you to Hugh, and all the patients who willingly donated samples that contributed to the completion of this PhD.

STAFF NEWS, GRANTS & AWARDS

MVLS Service Excellence Awards:
Congratulations also to Diane Verrecchia, Section Administrator at POG on her recent MVLS excellent services award.

Grants Awarded:
Tenovus pilot project grant, co-applicants – Dr Xu Huang/Dr Gillian Horne (POG) - "Identification of Combination Therapies Targeting DNA Damage Repair Signalling Pathways in AML Stem Cells"
CSO catalyst project grant, co-applicants – Dr Xu Huang/Dr Heather Jorgensen (POG) - "Target validation of the critical epigenetic regulator, KDM4A in acute myeloid leukaemia"
MRC CIC project grant, co-applicants – Dr Xu Huang/Dr Heather Jorgensen (POG) - "Target validation of the critical epigenetic regulator, KDM4A in acute myeloid leukaemia"
Royal Society International Exchange Fund, co-applicants – Dr Xu Huang/Prof. Zhi Qi (Peking University, China)
MRC CIC Project Grant – Dr Karen Keeson (POG) - "Developing TRIB2 as a predictive biomarker for acute myeloid leukaemia sensitivity to the clinical covalent multi-ERBB compounds"

Lighthouse Lab Volunteers

More than 800 volunteers came forward when the Lighthouse Lab in Glasgow opened.

The facility is now staffed on a 24/7 basis by a team of experienced scientists, including highly experienced molecular scientists, technicians and bioinformaticians – all with the relevant skills and experience to carry out COVID-19 testing.

Three members of staff from POG, Jennifer Cassells, Jodie Hay and Rebecca Mitchell were part of the team working at the Lighthouse lab, testing for COVID-19. We are proud their transferrable skills are being used in this way.

Jodie Hay shares her experience at the Lighthouse Lab

"I have been seconded to the Lighthouse Lab in Glasgow since 6th April. I was one of the first 6 University staff to join and helped set up the lab which is now processing 70,000 samples per day.

I am the onsite Data Manager and oversee the sample results which leave the lab and are reported to the NHS. I also oversee the data of the national screening studies and clinical trial samples which are processed here in Glasgow. I work with the different Government bodies and Trial teams closely to manage these different studies, which has been very exciting to be part of!"

Staff Promotions:
Many congratulations to Helen Wheeldon who has been promoted to Professor of Stem Cell Regulation. Vigfússon Vigfússon who is now Reader (Translation Research Centre) and Kristina Kirschner is promoted to Lecturer.

MVLS Service Excellence Awards:
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Narissa Parry, one of our PhD students working with Professor Mhairi Copland, tells us of her experience coming back to the lab at POG.

“Getting back to the POG after months working from home was a breath of fresh air! With the physical distancing, face masks and cleaning rotas in place, it didn’t take very long to get back into the swing of things.

At the forefront of all of our minds at POG is how to make our work in the lab translatable to a real improvement for patients with blood cancer, and the time away from the lab gave us all plenty of time to evaluate where our research currently stands and how we experiment needed to make sure our work the best it can be.

In the time that we’ve been back, I’ve been working on the final few experiments needed to complete the work for my thesis, tying together loose ends and confirming various results.

Along with lab work, an important aspect of my PhD has been getting involved with community outreach programmes, engaging the public with science, and raising awareness of the fantastic work done at POG.

To this end, this term I have been mentoring S6 students at a local Glasgow high school as they earn their Young STEM Leader Awards, and hopefully inspiring the next generation of cancer scientists!

Dr Anand Manoharan joined us as a Research Associate in March 2020. He is working with Professor Mhairi Copland and Dr Karen Keeshan. Anand has a 12-month project with our industrial collaborator Cyclacel exploring the cell cycle and apoptosis in AML.

Jamie Lees starts in January 2021 with Alison Michie’s group. Jamie’s PhD is entitled, “Exploiting the role of individual members of the FOXO transcription factor family: do they differentially regulate CLL survival, proliferation and chemosensitivity?”

In 2009 a committee made up of patients, volunteers and donors was established to raise awareness about the centre and to generate funds.

The committee organises a broad selection of events throughout the course of the year. If you would like to hear more about these events or to join the committee, please contact Michaella Mitchell, Supporter Engagement Manager, Development & Alumni External Relations - (0)141 330 8501 or email Michaella. mitchell@glasgow.ac.uk.
2. Please tell us what you would like to support

Ongoing Fundraising Events/Ideas:
A special thanks to Susanne Hendry, Administrator at the WWCRC, who raised funds for POG during lockdown by making her drawing of a little robin perched on a tree branch over the River Kelvin, with the University bell tower in the background and the University Main Building with nature all around it are the perfect way to keep in touch with loved ones - https://www.justgiving.com/fundraising/festivecardsforpog

Susanne has also created these beautiful Christmas cards with all donations going to our funds also.

One of our Fundraising Committee members, Fiona Mackenzie, has been very busy making face masks with 650 already done and many more on order. She has raised £1800 for POG so far. Here is Fiona modelling one of her creations and orders can be placed via Fiona’s Facebook page – https://www.facebook.com/mackdesignsglasgow/

Of course, our fundraising efforts have been severely affected by COVID-19 and a number of events had to be postponed including:

- POG Golf Day – Sunday 31 May 2020
- Kelvin Walkway Charity Walk – Sunday 31 May 2020
- Hidden Gardens Day – Saturday 30 May 2020
- Tommy Burns Dinner – 6 June 2020

We very much hope to be able to reschedule these events in the coming year.

3. Making your gift

Making a single gift
I would like to make a single gift to the University of Glasgow Trust of

Electronic funds transfer
Account Name: University of Glasgow Trust
Sort Code: 80-30-00
Account Number: 20006422

Please quote your surname and 7 digit reference number at the top of this letter.

I would like the payments to be taken from my account on the 1st, or 15th of the month

I would like to make a regular monthly quarterly annual gift of

Making a regular gift by Direct Debit
I would like to make a regular monthly quarterly annual gift of £

to the University of Glasgow Trust until further notice, or for a period of years.

I would like the payments to be taken from my account on the 1st or 15th of the month

Please refer to section 4 to complete the Direct Debit instruction.

Paul O’Gorman
Leukaemia Research Centre

For assistance and to return your form:
Email: givingtoglasgow@glasgow.ac.uk
or post to address overleaf!

4. Instructions to your bank or building society to pay by Direct Debit

Name and full postal address of your bank or building society

Service user number: 207165

Reference number

Instruction to your bank or building society
Please pay the University of Glasgow Trust Direct Debit from the account detailed in this instruction subject to the ultimate authority of the University of Glasgow Trust. I understand that this instruction may remain with the University of Glasgow Trust and, if so, details will be passed electronically to my bank/ building society.

Name(s) of Account Holder(s)

Branch Sort Code

Bank / Building Society Account Number

Signature(s)

Date

Banks and building societies may not accept Direct Debit instructions for some types of account.
5. Please name your gift

The University commemorates all cumulative gifts of £500 or above with an inscription of your choice. Donations to building projects are also recognised by a donor wall in the relevant building.

Example 'Dr James P Smith (1950)' or, ‘In memory of my beloved mother, Jane Houston’

☐ I would like a named inscription (Please enter details in box provided here)

☐ I would not like an inscription

If you do not notify us of your wishes, we will add an inscription on your behalf composed of your First Name and Last Name – eg. 'Stuart Kidd'.

Please specify your inscription USING BLOCK CAPITALS (maximum 100 characters)

6. Please tell us if you studied at the University of Glasgow

General Council/Matric No. _____________________________________________________________________________

Year of Graduation ___________________________________________________________________________________

Subject ____________________________________________________________________________________________

☐ I have included a gift in my will

☐ Please send me information about making a gift in my will

7. Thank you for your support

"Thank you so much for your generosity. Your donation will help us to continue our research to develop better treatments for blood cancer patients, and help to support students and members of staff to continue this important work. It is very humbling to see the dedication and hard work of not just our fundraisers, but also the staff at POG in our shared goal of curing blood cancers in the future."

Professor Mhairi Copland, Director, Paul O’Gorman Leukaemia Research Centre

8. Please send completed form to

Development & Alumni
3 The Square
University of Glasgow
Glasgow
G12 8QQ