

**Research Group Collaboration Matrix**

**Research Themes: a) Long Term Conditions b) Public Health**

**Long Term Conditions:**

GCU Research Groups: Living with Stroke and other neurological conditions; Musculoskeletal health; Visual health; Molecular mechanisms of long term conditions

<p><b>Research group: Living with Stroke and other long term neurological conditions</b></p>	
<p><b>Existing collaborative working:</b></p>	<p><b>Student projects:</b></p> <ol style="list-style-type: none"> <li>1. <u>MPhil</u>: NHSL staff member is undertaking a MPhil at NMAHP RU GCU  <u>Summary</u>: The MPhil examines the communication support and information needs amongst patients with TBI at a range of different stages in their recovery. Work in this area will highlight gaps in needs and the optimum time point for receipt of support and information, thereby impacting on service delivery.</li> <li>2. GCU PhD studentship: Health promotion to enhance physical activity after stroke in hospital settings. NHSL co-supervisor</li> <li>3. <u>PhD</u>: GCU staff member is undertaking a PhD exploring student-led falls classes for older adults at risk of falls. NHS-Lanarkshire providing physiotherapists and patients for this project in multiple stages that are still in development.</li> </ol> <p><b>Ongoing research projects:</b></p> <ol style="list-style-type: none"> <li>4. A Multi-Centre Randomised Controlled Trial to Compare the Clinical and Cost-Effectiveness of Lee Silverman Voice Treatment versus Standard NHS Speech and Language Therapy versus Control in Parkinson’s Disease (PD COMM). NHS Lanarkshire is one of the Scottish sites.</li> <li>5. GCU staff member has been seconded part-time (0.4 WTE) within NHSL as part of her Stroke Association funded Clinical-Academic Lectureship. This joint role is the first stroke AHP clinical-academic post of its kind in Scotland. Three collaborative projects have been developed with NHSL through this clinical academic link, supported by NHSL MSC stroke manager &amp; Head of Occupational Therapy (i) funded GCU PhD studentship that will be conducted in NHSL entitled “An exploratory study of implementation of a Goal setting and Action Planning (G-AP) framework in community rehabilitation settings”(ii) Development of digital Goal setting and Action planning (G-AP) record: (iii) development of an online G-AP training resource</li> <li>6. Rapid review of Dysphagia Assessment and Aerosol Generating Procedures and risk of COVID-19 transmission and infection conducted in conjunction with RCSLT COVID-19 advisory group including NHSL SLT. Review was published by RCSLT on their website and in a peer review journal.</li> </ol> <p><b>Projects in planning (funding being sought)</b></p>

	<p>7. <b><i>Project title:</i></b> Physical fitness and deconditioning in the development of MS fatigue: understanding the role of cardiorespiratory fitness, energy expenditure, and neuromuscular function  <b><i>Project summary:</i></b> This project aims to investigate the role of physical fitness in the development of Multiple Sclerosis related fatigue and explore the pathways through which fitness influences fatigue. This project will recruit MS patients through MS clinics in NHS Lanarkshire.</p> <p>8. <b><i>Project title:</i></b> Physical, psychological and functional recovery from COVID 19 in NHS Lanarkshire: a cohort study  <b><i>Project summary:</i></b> This project aims to investigate the impact and long-term recovery of physical, psychological and functional outcomes in people infected with COVID-19. All patients admitted to the three acute hospitals within NHS Lanarkshire (Hairmyres, Monkland, and Wishaw Hospital) with COVID-19 will be asked to participate in this project. In addition, people who have tested positive for COVID-19 but did not require hospitalisation or who have already been discharged from hospital will be recruited through NHS Lanarkshire GP practices. Currently, an application for funding is being developed for the NIHR urgent COVID-19 research projects funding call.</p> <p>9. Visual impairment in stroke – improving assessment and care pathways  Initial discussions between GCU, NHS L stroke leads and NHS L Orthoptic lead have identified clear areas for collaboration – specifically around methods for initial assessment of visual impairment, initiating 6 month vision reviews, and developing clear care pathways. We plan to embed research into these activities, as well as making use of the enhanced level of data they would provide for further work. Discussions have been interrupted due to COVID, but we plan to restart these as soon as possible.</p> <p>10. <b><i>Project title:</i></b> PREdictors of COVID19 OUtcomeS (PRECIOUS)  <b><i>Project summary:</i></b> This project aims to develop a large international data base of data on people who have experienced COVID-19 with long-term follow up (inclusive of but not limited to Long-COVID). An application for funding is current under review with the NIHR Health Services Research funding panel – provisional start date June 2021.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b></p> <p>Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p>Broad areas of interest with potential for collaboration:</p> <ol style="list-style-type: none"> <li>1. Developing interventions to enhance <b>physical recovery</b> (including <b>gait and mobility, arm function and functional fitness</b>) across the care pathway for people with stroke and other long term neurological conditions.</li> <li>2. Documenting current practice for <b>Speech and Language Therapy</b> after stroke, to contribute to an international registry of SLT therapy description and participant outcomes following stroke (International Population Registry for Aphasia after Stroke: I-PRAISE) and other SLT and neurological disorder related projects.</li> <li>3. Establishing an <b>online database of rehabilitation intervention input and outcomes</b> for people with stroke to inform the Scottish Stroke Care Audit and generate further hypotheses for clinical effectiveness research. Stroke could be the template condition for piloting this initiative and if successful could be opened up to other conditions.</li> <li>4. Both GCU and NHS-L have expressed interest in the topic of <b>setting and pursuing rehabilitation goals</b> in stroke rehabilitation contexts (see above re. Dr. Lesley Scobbie’s work)</li> <li>5. <b>Visual impairment in stroke</b> – with potential for collaboration between GCU (NMAHP and Vision Sciences), NHS L and other partner organisations e.g. Visiblity Scotland</li> </ol>

Research & Innovation Workstream

	<p>6. Item 7 above is focused on understanding <b>the mechanisms of fatigue in people with Multiple Sclerosis</b>, developing interventions to manage fatigue and evaluating the effect of exercise in people with Multiple Sclerosis.</p> <p>7. Item 8 above aims to understand the <b>impact and long-term consequences of COVID-19</b> and develop rehabilitation interventions promote recovery following COVID-19 infection</p>
--	--

<p><b>Research group: Musculoskeletal health</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p>GREAT – Gait Rehabilitation in Early Arthritis Trial.</p> <p>Funded by NIHR-HTA, currently finalizing the feasibility phase. This will be followed by pilot and full trial (RCT) where we will look to NHSL to collaborate for patient recruitment and treatment provision.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b> Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p>Orthopaedic surgery (lower limb) Chronic pain Osteoarthritis Inflammatory joint diseases (e.g. rheumatoid arthritis) Biomechanics of musculoskeletal health</p>

<p><b>Research group: Visual Health</b></p>	
<p><b>Existing collaborative working:</b></p>	<p>NIHR EME clinical trial: “Low-dose atropine eye drops to reduce progression of myopia in children in the United Kingdom” – in collaboration with Queens University Belfast (Lead institution). This is a multi-centre trial that will influence practice in relation to developing methods of reducing myopia progression in children. NHSL is a clinical site.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b></p>	<p>New PhD Project currently recruiting: “Investigation into enhanced patient consultation on post-cataract surgery patient satisfaction with visual outcomes” – Joint GCU and Vision Research Trust funding for PhD project – NHSL co-supervisor Funding starts September 2021</p>
<p>Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p>Prof Niall Strang and Prof Gunter Loffler have entered discussion with NHS Lanarkshire to investigate the feasibility of Ophthalmology at NHS Lanarkshire to gain University status. Areas of interest include:</p> <ul style="list-style-type: none"> <li>• Public Health/Scottish eye-care</li> <li>• Stroke vision</li> <li>• Glaucoma</li> <li>• ARMD</li> <li>• Anterior Eye Disease</li> </ul>

<p><b>Research group: Molecular mechanisms of Long Term Conditions.</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p><b>ONGOING:</b> <b>Dr Janice Spencer (GCU) and Prof Stephanie Dancer (NHSL)</b> This collaboration is currently investigating the role of the microbiome in diabetic foot ulcers. Samples have been received from patients attending the diabetic foot clinical who have enrolled in the clinical trial that Prof Dancer is coordinating investigating the efficacy of a novel irrigant in wound healing.</p> <p><b>PLANNING:</b> <b>Dr Mark Williams (GCU) Dr John Murphy and Dr Lindsay Mitchell (NHSL)</b> “Use of immunohistochemistry and co-culture model systems to investigate the contribution of M2 macrophages towards chemotherapy resistance in patients with Acute Myeloid Leukaemia”. Main PI: Dr Mark Williams. This project focusses on identifying cancer supporting macrophages (immune cells) in Acute Myeloid Leukaemia patients and highlighting the potential mechanisms by which these cancer supporting macrophages contribute towards chemotherapy resistance in AML (currently an incurable blood cancer). Both Dr Murphy and Dr Mitchell would contribute in the capacity of providing valuable samples from AML patients.</p> <p><b>Dr Claire Crossan and Dr Linda Scobie with Dr Femi Oshin (NHSL)/Health Protection Scotland.</b></p>

Research & Innovation Workstream

	Investigation of the lower incidence of Hepatitis E infections in NHS Lanarkshire in comparison to other health boards. This work is led via the Hepatitis E scoping group chaired by Health Protection Scotland of which the collaborators are members.
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b></p> <p>Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p><b>Vascular Biology and Metabolic Disorders</b></p> <ul style="list-style-type: none"> <li>• <i>In vivo</i> and <i>in vitro</i> research into pulmonary hypertension</li> <li>• Connexins, wound healing and disease</li> <li>• Blood cancers: Acute Myeloid Leukaemia and Multiple Myeloma.</li> <li>• Current trends in Hepatitis E infection</li> <li>• Bacterial and Viral infections and the contribution to chronic disease</li> <li>• Anti-microbial resistance in waste water (contamination with by-products of antibiotics)</li> <li>• Novel applications to maintain a healthy microbiome.</li> <li>• Clinical Haematology</li> </ul> <p>A formal meeting of interested parties with the opportunity to present areas of interest and meet partners would be extremely useful as for now emails are normal form of communication but are always difficult to follow up due to time constraints.</p>

Research Theme: Public Health

<p><b>Research group: Safeguarding Health Through Infection Prevention</b></p>	
<p><b>Existing collaborative working:</b></p> <p>Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p><b>SIREN (Sarscov2 Immunity &amp; REinfection EvaluatiON):</b> Prof Lesley Price is the Scottish Lead for SIREN and has been working with Dr Manish Patel (PI SIREN), Raymond Hamill and Berni Welsh to initiate the SIREN study in NHS Lanarkshire. There are a team of NHSL research nurses working on recruitment and follow up testing of healthcare workers.</p> <p>SIREN The SIREN study is a PHE led cohort study of healthcare workers. Participants undertake symptom questionnaires and respiratory swabs every 2 weeks and a serum sample is taken every 4 weeks. SIREN aims to determine if prior SARS-CoV2 infection in health care workers confers future immunity to re-infection, it has recently included addition objectives on vaccine effectiveness: which will monitor effectiveness of a vaccine/vaccines against an infection and symptomatic disease and monitor immune response to vaccination over time. Healthcare workers are one of the earliest groups to be offered the vaccine therefore this study is likely to provide one of the earliest estimates of vaccine effectiveness against infection. NHS Lanarkshire are one of the participating health boards in SIREN.</p>

Research & Innovation Workstream

	<p>ONGOING: <b>Evaluation of the implementation of HARP:</b> Day 3 review of antibiotic prescriptions PhD Project (Ayodeji Matuluko / Prof Kay Currie) working in collaboration with Dr Stephanie Dundas (NHSL ID Consultant) and the SAPG working group The project is due to complete in 2021, however has been delayed due to covid meaning HARP implementation has been postponed.</p> <p>RECENTLY COMPLETED Evaluation of Cost of Nosocomial Infection (ECONI). CI Prof Jacqui Reilly (GCU), PI Lanarkshire Prof Stephanie Dancer (NHSL). Five peer reviewed publications have been submitted to Journal of Hospital Infection and are awaiting final editorial review.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b> Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p><i>Healthcare associated infection, Antimicrobial resistance &amp; Stewardship and Infection Prevention &amp; Control – our programmes of work in relation to the above focus on epidemiology, economics, patient &amp; staff experience, applied infection prevention &amp; control interventions</i></p>

<p><b>Research group: Sexual Health and Blood Borne Viruses</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p>CSO funded studies: NHSL sexual health staff participation in PrEP telephone interviews Sexual and mental health of MSM in Lanarkshire (SMMASH studies)</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b> Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p>GCU are already very well connected with NHSL through strong clinical networks. STIs, sexual health, BBV, and mental health of MSM</p>

Research & Innovation Workstream

<p><b>Research group: Substance Use</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p>Whilst joint discussions have taken place, there are no currently active collaborative research projects Gary Tanner (Director of Psychological Services NHS Lanarkshire) is an existing external contributor to the Applied Psychology Doctoral Framework and an Honorary Research Fellow at GCU. Dr Emily Pathe (Psychology) is part time NHSL and part time GCU. Prof Lawrie Elliott discussed collaborative research in Public health with Dr Femi Oshin (consultant in public health) and NHS Lanarkshire Board of Public Health January –Feb 2020. Included identifying new interventions with view to acquiring external funding and the possibility of a resource to prepare funding bids e.g., secondment to GCU at research fellow level. Covid-19 got in the way of things and discussions suspended.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b> Specify any ongoing projects, developing grants, etc., where you would be interested in seeking the involvement of NHSL – either as part of the research team, or in relation to recruitment within NHSL / study delivery</p>	<p>DPsych student research that is service relevant/informing</p>

<p><b>Research group: Child and Adolescent Health</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p>Prof Simon Hunter met with Gary Tanner on 1<sup>st</sup> February 2021 to discuss potential involvement in funding proposal (Nuffield) relating to mental illness stigma in children with parents who experience mental illness. Includes two charity partners as well (Mental Health Foundation and Our Time).</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b> Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<p>Clarification of NHSL service delivery and interest in research building involving children and young people would be helpful; possible areas include</p> <ul style="list-style-type: none"> <li>• Disadvantaged young people and family relationships</li> <li>• Supporting young people’s engagement with psychological services (the SMYLE study).</li> <li>• Parenting support for families where a parent has an identified mental health problem</li> <li>• Supporting families of children with chronic health conditions</li> <li>• The causes, experiences, and consequences of mental illness stigma for children and young people.</li> </ul>

<p><b>Research group: Ageing Well</b></p>	
<p><b>Existing collaborative working:</b> Provide a brief summary of collaborative working / projects - recently completed, ongoing or in planning (include title, brief summary, NHSL/GCU collaborators, etc.)</p>	<p><b>THINK ACTIVITY - Sedentary behaviour reduction – service improvement project</b> (no funding). Started with discussion and training in and use of activPals to document the sedentary behaviour in hospitals (back in 2017). This led to a number of poster presentations at NHS Scotland conferences and more recently to the winning of the TOP TEAM AWARD at the Scottish Health Awards (2018) - <a href="https://www.scottishhealthawards.com/2018-winners.html">https://www.scottishhealthawards.com/2018-winners.html</a>. Lianne has a blog - <a href="https://www.careopinion.org.uk/blogposts/753/thinkactivity---using-activity-passports-to-s">https://www.careopinion.org.uk/blogposts/753/thinkactivity---using-activity-passports-to-s</a> which details the activity passport co-created with staff and patients for this project. This activity passport has been shared on Twitter and on FB and at multiple conferences and can be adapted for local use (with acknowledgment of original NHSL source).</p> <p>NHSL collaborated on Stroke Association funded pilot trial - Treat-UI (Transcutaneous Tibial Nerve Stimulation) to treat urinary incontinence in stroke survivors – NHSL co-app, stroke researchers and CRNs.</p> <p>Toileting Assessment and Toilet Training for Adults with Learning Disabilities with Incontinence. Co-Is: NHS Lanarkshire. Due to start in Jan 2020 but delayed due to Covid-19) Revised start date Oct 2021 [Covid permitting]</p> <p>The CADET trial has been funded by HTA. Will recruit long term catheter users from NHS Lanarkshire. Start date TBC</p> <p>NEW PROJECT – INVINCIBLE STUDY, collecting data on QoL from long term catheter users in NHSL and Pennsylvania usa to compare and look at impact of catheter care policies, study currently paused due to covid</p> <p>NHSL/GCU PhD Studentship project focused on Chronic Pain and development of a brief acceptance-based intervention for GPs in primary care. 2019-2023.</p> <p>NHSL/GCU PhD Studentship project focused on Functional decline in older adults in inpatient and ‘Hospital at Home’ settings. 2019-2023.</p> <p>PhD GCU staff funded Studentship examining student led Otago classes for falls prevention in older adults at risk of falls. NHSL physio staff involved in deciding format of student delivered programmes and pathways that can be set up to allow NHSL patients access to GCU student led Otago classes.</p>
<p><b>Existing GCU health research interests with potential for NHSL collaboration:</b></p>	<p>GCU areas of interest include:</p> <ul style="list-style-type: none"> <li>• acute management of incontinence (bladder and bowel) in stroke - would be keen for NHSL involvement as collaborators on grant applications.</li> <li>• implementing reasonable adjustments for patients/clients with learning/disabilities.</li> </ul>



Research & Innovation Workstream

<p>Specify broad areas of interest within your research group where there is potential / desire to collaborate with NHSL colleagues</p>	<ul style="list-style-type: none"><li>• delivery of care in respiratory conditions, self-management, health literacy, pulmonary rehabilitation, digital health, patient activation</li><li>• interventions and physical activity in people with Peripheral Arterial Disease and Intermittent Claudication and chronic pain e.g. 1) exploring pain management and structured patient-centred education to increase physical activity and enhance secondary prevention or 2) supervised exercise combined with structured patient education for increasing physical activity and reducing risk of heart attack or stroke</li><li>• Reducing sedentary behaviour and increasing mobilisation on hospital wards.</li><li>• Falls Prevention implementation</li><li>• Co-creation, Impact of Blue (waterways) Infrastructure and physical activity on health, green and blue prescribing</li></ul>
---	---