
CURRICULUM VITAE

Anguraj Sadanandam, Ph.D.	Team Leader Career (Senior) Faculty (<i>Tenured Associate Professor</i>) Systems and Precision Cancer Medicine Team Division of Molecular Pathology Institute of Cancer Research (ICR) 15 Cotswold Road Sutton, Surrey SM2 5NG United Kingdom anguraj.sadanandam@icr.ac.uk +44-208-915-6631
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EDUCATION / TRAINING

- Aug 2002 – Jul 2007 Ph.D. (Pathology and Microbiology with specialty in Bioinformatics), University of Nebraska Medical Center (UNMC), Omaha, NE, USA.
- Jul 1996 – Jul 2001 M.Sc. (5 years integrated Life Sciences), Bharathidasan University, Trichy, India.

EMPLOYMENT HISTORY**Current Positions**

- Nov 2018 – Present **Team Leader and Career (Senior) Faculty (*Tenured Associate Professor*)**, Systems and Precision Cancer Medicine Team, Division of Molecular Pathology, ICR, London, UK
- Sep 2013 – Present **Honorary Appointment**, Centre for Molecular Pathology, Royal Marsden Hospital, London, UK
- Aug 2018 – Present **Research Collaborator** (Kannan Lab), Mayo Clinic, Rochester, MN, USA

Previous Positions

- Sep 2013 – Nov 2018 **Team Leader and Career Development Faculty (tenure-track Assistant Professor)**, Systems and Precision Cancer Medicine Team, Division of Molecular Pathology, ICR, London, UK
- Oct 2011 – Aug 2013 **Senior Research Scientist** (semi-independent position; Michielin Lab), Swiss Institute of Bioinformatics (SIB), Lausanne, Switzerland
- Oct 2011 – Aug 2013 **Guest Scientist and Embedded Bioinformatician** (Hanahan Lab), Swiss Institute for Experimental Cancer Research (ISREC), Swiss Federale Institute of Technology Lausanne (EPFL), Lausanne, Switzerland
- Nov 2009 – Sep 2011 **Senior Postdoctoral Scientist** (Advisors: Hanahan, Switzerland and Gray, USA), ISREC, EPFL, Lausanne, Switzerland
- Sep 2007 – Aug 2009 **Computational Biology Postdoctoral Fellow** (Gray Lab), Lawrence Berkeley National Lab (LBNL), Berkeley, CA, USA
- Aug 2002 – Jul 2007 **Graduate Assistant/Ph.D. Student** (Singh Lab), UNMC, Omaha, NE, USA

HONORS AND AWARDS

- 2017 Keynote Speaker, TransMED, ISMB 2017
- 2017 Grant for Oncology Innovation (GOI) Award, Merck KGaA
- 2011 DOD BCRP Distinguished Postdoctoral Poster Award at 6th Era of Hope conference
- 2009 – 2013 Department of Defense (DOD) - BCRP Postdoctoral Fellowship
- 2009 California Breast Cancer Research Program (CBCRP) Postdoctoral Fellowship
(*never activated as DOD fellowship was accepted*)
- 2007 Represented University of Nebraska Medical Center, International Students Forum, Japan
- 2007 Norman-Harris Award for Outstanding Graduate Student in Cancer Research, UNMC, Omaha, NE, USA
- 2007 Second Poster Presentation Award from Department of Pathology, UNMC as a part of Midwest Student Biomedical Research Forum
- 2006 Norman-Harris Award for Outstanding Graduate Student in Cancer Research, UNMC, Omaha, NE, USA

2004 – 2007 Graduate Studies Research Assistantship, UNMC, Omaha, NE, USA (through competitive grant application; awarded consecutively two times; overall for three years)

Travel Awards

2018 Travel award for ENETS Annual Conference
 2017 Travel award for ESMO Asia 2017
 2014 CELL Travel Award for International Conference on Cancer Biology, Chennai, India
 2007 Travel Award for Edward A. Smuckler Memorial Pathobiology of Cancer Workshop, American Association of Cancer Research (AACR)
 2005 Travel Award for Instruction and Innovation through Informatics, College of American Pathologists (CAP)

PROFESSIONAL ACTIVITIES

External to the ICR

Editorial Board/Academic Member

2018 – Present Scientific Reports
 2014 – 2016 PLoSOne

Journal Reviewer (Adhoc)

Nature PLUS Reviews; Gut; PLoS Medicine; Science Translational Medicine; Annals of Oncology; Scientific Reports; PNAS PLUS; Clinical Cancer Research; PLoS Computational Biology; Oncotarget; International Journal of Cancer; PLoSOne; BMC Medical Genomics; Oncogenesis; Cancer Informatics

Grant Funding Reviewer (Adhoc)

Medical Research Council (MRC), UK; Biotechnology and Biological Sciences Research Council (BBSRC), UK; Research Foundation Flanders (FWO), Belgium; Coris Veneto Grant, Italy.

Active Partner/Collaborator in International Consortia

2018 – Present Colorectal Cancer Molecular Pathway (CMP) Consortium organised by SAGE Bionetworks
 2017 – Present COLOSSUS consortium – European Union funded H2020 project (Work Programme-5; Bioinformatics Lead)
 2016 – Present International Immuno-Oncology Network from Bristol-Myers Squibb
 2014 – 2016 ColoRectal Cancer Subtyping Consortium (CRCSC) – major contributor to Consensus Molecular Subtypes (CMS) – organized by SAGE Bionetworks
<http://sagebase.org/case-studies/colorectal-cancer-subtyping-consortium/>
 2014 – 2016 ANGIOPREDICT an FP7-funded project (Bioinformatics Collaborator)
<https://www.angiopredict.com/go/news2/angiopredict-annual-meeting-2014-leuven->

Affiliations to Professional Organisations (Present/Past)

American Association of Cancer Research (active); European Society for Medical oncology (ESMO; active); European Association of Cancer Research (EACR; active); American Society of Clinical Oncology (ASCO; active); International Society for Computational Biology (active); Tumor Microenvironment Working Group (active); Integrative Cancer Biology Program (ICBP; past); Association of Pathology Informatics (past).

Internal to the ICR

Research/Non-research Committees

2018 ICR Conference Organising Committee
 2016 – Present Knowledge Hub, ICR funded by CRUK (PI: Dr. Bissan Al-Lazikani, ICR)
 2016 – Present IT Steering Committee, ICR
 2015 – 2016 Informatics Committee, ICR

Internal Assessor for ICR PhD Students' Transfer Viva

Kate Chkhaidze (Supervisor: Dr. Andrea Sottoriva, Cancer Evolution)
 Matthew Clarke (Supervisor: Dr. Chris Jones, Molecular Pathology)
 Peter Harrison (Supervisor: Dr. Paul Huang, Molecular Pathology)
 Timon Heide (Supervisor: Dr. Andrea Sottoriva, Cancer Evolution)
 Thahn Nguyen (Supervisor: Dr. Graham Smith, Radiotherapy and Imaging)
 Julia Hoebart (Supervisor: Dr. Gabriela Kramer-Marek, Radiotherapy and Imaging)

MENTORING/TRAINING/TEACHING EXPERIENCE**MD/PhD Student Primary/Associate Supervision**Primary/Co-primary SupervisorGraduated

2014 – Sep 2018 Ms. Pawan Poudel (PhD, Future Research Leaders Fund, PCUK; Graduated with minor corrections in thesis)

Current

2016 – Present Dr. Elisa Fontana (Clinical Ph.D., CRUK/ICR funded)
 2016 – Present Dr. Young Kate (Clinical MDRes, Co-Primary Supervisor with Dr. Starling, NIHR BRC funded)
 2015 – Present Ms. Katherine Eason (PhD, ICR funded)

Associate Supervisor

2015 – Present Dr. Melissa Tan (MDRes, Associate Supervisor, Primary: Professor Huddard, ICR)

Research SupervisionCurrent Members

2018 – Present Dr. Krisha Desai (Postdoctoral Fellow, II-ON Bristol-Myers Squibb)
 2018 – Present Mr. Patrick Varun Lawrence (Workplacement Staff, Farringdon/ICR Funded)
 2017 – Present Mr. Yatish Patil (Bioinformatics Officer, NIHR BRC, UK and ARC-NET, Italy funded)
 2014 – Present Ms. Chanthirika Ragulan (Higher Scientific Officer, multiple funding)
 2014 – Present Dr. Gift Nyamundanda (Senior Postdoctoral Fellow, multiple funding)

Past Members

Dr. Marie Therese Rached (Postdoctoral Fellow)
 Dr. Anand Koteswara Rao Kanugula (Postdoc, USA)
 Ms. Erica Little (The Brain Tumour Charity)
 Ms. Vaitha Arunan

Research Trainees (since 2013 at the ICR)

Aishani Chhabra (Master's thesis; Vellore Institute of Technology, India)
 Adam Kiss (Erasmus Programme Fellowship for summer training)
 Olga Boix (Erasmus Programme Fellowship for summer training)
 Sumeeyee Akcelik (Erasmus Programme Fellowship for summer training)
 Katherine Eason (ICR Summer Vaccation trainee; currently PhD student)
 Ansuka Ganthaswamy (High School research training)
 8 other trainees before 2013 and joining the ICR

Teaching

M.Sc., Clinical Oncology, ICR/RMH, London – lecture (single module for 2 hours) for 2014 and 2015.

SADANANDAM LAB MEMBERS' HONORS/AWARDS**Elisa Fontana** (Clinical Ph.D. student):

2019 Merit Award from Conquer Cancer Foundation for ASCO GI Poster presentation
 2018 – 2019 MedTech SuperConnector Entrepreneur Training Award (Cohort-I; for eight months
My role: PI and supervisor; Funding received, see Grants section below)
 2018 University of London Scholarship Fund
 2017 European Society for Medical Oncology (ESMO) Asia 2017 Travel Grant

Pawan Poudel (Ph.D. student):

2016 The Kay Kendall Leukaemia Fund and CRUK bursary to attend the Evolutionary
 Biology and Ecology of Cancer Summer
 2016 University of London Travel Fund
 2015 – 2018 Pancreatic Cancer UK Future Leader (My role: PI and supervisor; Funding received,
 see Grants section below)

Chanthirika Ragulan (Higher Scientific Officer):

2017– 2018 Nominated twice for Best Scientific Officer Competition at the ICR
 2017 NanoString Technologies' pilot fund – "Can the nCounter® Vantage 3D™ assay stratify
 pancreatic ductal adenocarcinoma (PDAC) patients who may benefit from chemotherapy
 treatment?"

Katherine Eason (Ph.D. student):

- 2018 EACR-Worldwide Cancer Research Meeting Bursary Travel Award for a conference on Making it Personal: Cancer Precision Medicine, Bergamo, Italy
- 2016 – 2018 Rosetrees Trust – Grant for Consumables (*My role*: PI and supervisor; Funding received)

Marie Therese Rached (Postdoctoral Fellow):

- 2018 ESMO Travel Award for symposium on “*Signalling pathways in Cancer*”, focused on CDKs, Barcelona.
- 2018 Travel bursary from conference organizer - “*Stem Cells and Regenerative Medicine*”, Zurich.
- 2018 Novo Nordisk Fonden’s Travel Bursary to present a poster at a conference on “*Protein Signalling: from pathways to networks*”, Copenhagen.

COLLABORATORS**International Collaborators (External and Only Active)**

- Professor Aldo Scarpa (ARC-NET Centre, University of Verona, Italy)
- Professor Andrés Cervantes (CIBERONC, University of Valencia, Spain)
- Professor Bertram Wiedenmann (Charité Hospital, Germany)
- Professor Patrick Tan (Duke-NUS, Singapore)
- Professor Chris O’Callaghan (Canadian Clinical Trials Unit, Canada)
- Dr. Ramon Salazar (University of Barcelona, Spain)
- Dr. Iain Tan (NCCS, Singapore)
- Professor Jochen Prehn (Royal College of Surgeons in Ireland)
- Dr. Annette Byrne (Royal College of Surgeons in Ireland)
- Dr. Rodrigo Dienstmann (VHIO, Spain)
- Dr. Justin Guinney (SAGE Bionetworks, USA)
- Dr. Costas Lyssiotis (University of Michigan, USA)
- Dr. Mikael Sodergren (Imperial College, UK)
- Dr. Nick West (Leeds Institute, UK)
- Dr. Nagarajan Kannan (Mayo Clinic, USA; associated with my Research Collaborator position)
- Professor T.S.Sridhar and Dr. Aruna Korlimarla (SJRI, India)

ICR Collaborators (Internal and Active)

- Cancer Therapeutics - Professor Raj Chopra and Dr. Steven Whittaker
- Radiotherapy and Imaging - Professors Alan Melcher, Robert Huddart and Jeffrey Bamber, and Dr. Simon Robinson
- Clinical Studies - Professor Louis Chesler
- Molecular Pathology - Drs. Nicola Valeri and Yinyin Yuan

Royal Marsden Hospital Collaborators (External and Active)

- GI Unit - Professors David Cunningham and Gina Brown, Drs. Naureen Starling and Ian Chau
- Breast Unit - Professor Mitch Dowsett

CLINICAL STUDIES**Royal Marsden Hospital-based Clinical Trials/Studies as Scientific/Lead Investigator**

- **Scientific Investigator** - PaC-Man - Pancreatic Cancers Molecular Analysis Study (Chief Investigator: Dr. Naureen Starling; Prospective study)
- **Scientific Investigator** - PANTHER - A retrospective translational study: characterisation of molecular predictors of outcome in patients with pancreatic cancer (Chief Investigator: Dr. Ian Chau; Retrospective study)
- **Co-Lead Investigator** - PaNaCeA - A translational study in gastroentero-pancreatic neuroendocrine tumours (GEP-NETs) to validate and assess a novel molecular classification (Chief Investigator: Dr. Naureen Starling; Retrospective study)
- **Collaborative Investigator** - RETRO-C - A RETROspective translational study: characterization of molecular predictors of response to Cetuximab or panitumumab in patients with colorectal cancer (Chief Investigator: Professor David Cunningham; IRB-10/H0308/28; Retrospective study)
- **Scientific Investigator** - TRIGGER - magnetic resonance Tumour Regression Grade as biomarker for stratified management of Rectal cancer patients (Chief Investigator: Professor Gina Brown; Prospective Trial)
- **Scientific Investigator** (pending approval) - TRACC - Tracking mutations in cell free tumour DNA to predict Relapse in early Colorectal Cancer (Chief Investigator: Professor David Cunningham; CCR-4344; Prospective study)

National/International Clinical Trials/Studies as Co-investigator/Scientific/Collaborative Investigator

- **Co-investigator** – ARDEO - A phase II prospective Randomised clinical study of endoscopic ultrasound-guided radiofrequency ablation for stage 3 inoperable pancreatic ductal adenocarcinoma (Chief Investigator: Dr. Mikael Sodergren, UK; Prospective trial).
- **Collaborative Investigator** - CONCEPT – colorectal cancer, Canadian Clinical Trials Group (CCTG) with access to major colorectal cancer trials CO.17, CO.20 and CO.23 (Chief Investigator: Prof. Chris O'Callaghan, Canada and Dr. Derek Jonker, Australia; n~750; Prospective trial)
- **Collaborative Investigator** – TRIBE/TRIBE2 - Combination chemotherapy and bevacizumab as first-Line therapy in treating patients with metastatic colorectal cancer (Chief Investigator: Professor Alfredo Falcone, Italy; Prospective trial).
- **Collaborative Investigator** (pending approval) - SEQTOR - Efficacy and safety of everolimus and (STZ-5FU) given one upfront the other upon progression in advanced pNET (Chief Investigator: Dr. Ramon Salazar, Spain; Prospective trial)
- **Collaborative Investigator** - INCLIVIA Spain clinical study (Chief Investigator: Professor Andres Cervantes, Spain; F-CE-GEva-15).
- **Collaborative Investigator** - ARC-NET Pancreatic adenocarcinoma and neuroendocrine tumour studies (Chief Investigator: Professor Aldo Scarpa, Italy; Retrospective samples)
- **Collaborative Investigator** - Singapore retrospective colorectal cancer sample study (Chief Investigator: Dr. Iain B. Tan, Singapore; Retrospective samples)

RESEARCH CONFERENCE ORGANISING COMMITTEE/CHAIRING/PRESENTATIONS**Conference Organising Committee**

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| 2018 | Programme Committee, Intelligent Systems for Molecular Biology (ISMB) – ISCB organized conference in Chicago. |
| 2018 | Organising Committee, ICR Conference. |

Conference - Chairing Session

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| 2018 | Grand Rounds at the ICR, Sutton, UK. |
| 2016 | Research Impact: Cancer in Developing Countries; ICR Conference. |
| 2016 | Next Generation Genomics, Bioinformatics and Technologies (NGBT) Conference (NGBT), Cochin, India. |
| 2016 | Session III: Preclinical and Clinical Advances, Pancreatic Cancer Symposium, Marseille, France |
| 2014 | Next Generation Genomics, Bioinformatics and Technologies (NGBT) Conference, (NGBT), Bangalore, India. |
| 2014 | Cancer Bioinformatics; ICR Conference. |

Invited Talks**Keynote Speaker**

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| 2017 | TransMed KEYNOTE, Intelligent Systems for Molecular Biology (ISMB) and the 16 th European Conference on Computational Biology, Prague, Czech Republic. |
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Invited Talks in International Conferences:

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| 2018 | Centre for Molecular Pathology Seminar, RMH/ICR, London, UK. |
| 2018 | European NeuroEndocrine Tumor Society (ENETS) Annual Meeting, Barcelona, Spain. |
| 2017 | National Cancer Research Institute (NCRI) Annual Meeting, Liverpool, UK. |
| 2017 | Breast Cancer Now International Seminar Series, ICR, London |
| 2017 | Pancreatic Cancer Workshop, Imperial College, London, UK. |
| 2017 | Pancreatic Diseases – Gordon Research Conference, Waterville, NH, USA. |
| 2015 | Annual Meeting American Association of Cancer Research (AACR) Annual Meeting, PA, USA (<i>due to unforeseen circumstances did not attend</i>). |
| 2014 | World Men conference, Vienna, Austria. |
| 2014 – 2016 | Next Generation Genomics, Bioinformatics and Technologies (NGBT) Conference (NGBT), India. |
| 2014 | French Pancreatic Cancer Association meeting, Paris, France. |
| 2014 | International Conference on Cancer Biology, Chennai, India. |
| 2013 | American Association of Cancer Research (AACR) Annual Meeting, Washington DC, USA. |
| 2012 | Caring for Carcinoid Association, Whitehead Institute, Boston, USA. |
| 2011 | DOD BCRP Era of Hope Meeting, Orlando, Florida, USA. |
| 2007 | American Association of Cancer Research (AACR) Annual Meeting. |

Grand Rounds/Seminar series

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| 2015 | Grand Rounds, DKTK/Charite Comprehensive Cancer Centre (CCCC), Berlin, Germany. |
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Invited seminars:

2017	Mayo Clinic, Rochester, MN, USA - Apr 2017.
2017	Barts Cancer Institute, Queen Mary University of London, London, UK.
2016	Indian Institute of Science (IISc), Bangalore, India.
2016	National University of Singapore, Singapore, Apr 2016.
2016	Duke-NUS, Singapore, Apr 2016.
2016	Institute of Molecular and Cellular Biology (IMCB), A*star, Singapore.
2016	AMC, Netherlands.
2015	Institut Régional du Cancer de Montpellier, Montpellier, France.
2013	Sanofi-Aventis, Paris, France.
2013	National Center for Biological Sciences (NCBS), Bangalore, India
2012	C-CAMP, Bangalore, India
2011	Charité - Universitätsmedizin Berlin, Berlin, Germany
2011	Indian Institute of Science, Bangalore, India
2011	MD Anderson, Houston, Texas, USA
2011	Institute of Molecular Cell Biology, Jena, Germany
2011	Brunnen, Switzerland
2010	University of Fribourg, Fribourg, Switzerland
2009	Strand Life Sciences, Bangalore, India
2009	National Center for Biological Sciences (NCBS), Bangalore, India

ORAL PRESENTATIONS IN NATIONAL/INTERNATIONAL CONFERENCES FROM SADANANDAM LAB MEMBERS/SIGNIFICANT COLLABORATORS

2018	Eason, K. Festival of Genomics 2018, London (represented instead of Sadanandam).
2017	Smyth, E. ESMO-Asia, Singapore.
2017	Fontana, E. ESMO-Asia, Singapore.
2017	Young, K. ESMO, Barcelona, Spain.
2017	Eason, K. NanoString Summit 2017, Germany.

GRANT FUNDING

The below external/internal grant funding, where I am a PI (unless indicated to be a Co-Principal Investigator or Collaborator), generated exclusively more than ~£3.6 million over 5 years for my lab at the ICR out of total ~£9.3 million as PI and Co-PI in multiple grants. I have played collaborative roles in multiple other grants totaling more than ~£10 million in last 5 years (representing team science).

Current Grants (as PI/Co-PI)

2018 – 2021	<p>Advancing a precision medicine paradigm in metastatic colorectal cancer systems based patient stratification solutions (COLOSSUS consortium) EU H2020 Research and Innovation Framework Programme Administrative coordinator: Dr. A. Byrne, RCSI, Ireland; Scientific Coordinators: Prof. J. Prehn, RCSI, Italy and Dr. R. Dienstmann, VHIO, Spain Total consortium Funding - ~€6 million <i>My role:</i> Co-Investigator; Bioinformatics Lead for Work Programme-5 <u>Sadanandam Lab component</u> – €306,000 (funds a full-time Bioinformatics Postdoc, travel and data storage and management costs)</p>
2018 – 2021	<p>Characterizing the evolution of metastatic colorectal cancer and its immune microenvironment for therapeutic vulnerability Merck KGaA – Grant Oncology for Innovation (GOI) €200,000 (Co-PI: Dr. N. Starling, ICR/RMH)</p>
2017 – 2019	<p>Stratifying pancreatic ductal adenocarcinoma (PDAC) <i>in vivo</i> based on stroma to identify tailored immunotherapeutic approaches Bristol-Myer Squibb - International Immuno-Oncology (II-ON) Network €249,752 (Joint PI: Dr. N. Starling, ICR/RMH)</p>
2016 – 2019	<p>A translational study in gastroenteropancreatic neuroendocrine tumours (GEP-NETS) to validate and assess the clinical validation of a novel molecular classification NIHR - Biomedical Research Center (BRC) Flagship Fund £224,910 (Clinical Investigator: Dr. N. Starling, ICR/RMH)</p>

- 2018 – 2019 **Training Clinical Ph.D. student for entrepreneurship and to develop companion diagnostic assay for colorectal cancer**
MedTech SuperConnector, UK
£103,000
- 2016 – 2023 **Transcriptome analysis of pancreatic cancers**
AIRC Associazione Italiana per la Ricerca sul Cancro (ARC)-NET, University of Verona, Italy
£234,409
(Associated with collaborative grant from ARC-NET provided below; funding for Bioinformatician and sequencing of over 350 pancreatic cancer samples; additional funding includes about £50,000 paid directly to sequencing service providers)
- 2016 – 2019 **Dissecting and validating subtype-specific heterogeneity, predictive biomarkers and therapies in cetuximab resistant colorectal cancer**
CRUK Clinical Ph.D. Studentship through ICR/RMH
3 years of student stipend and consumables
~£250,000
- 2015 – 2019 **Systematic characterizing of functional tumour heterogeneity and identifying the associated personalized therapies by developing methods to integrate ~omics and phenotypic data**
ICR Ph.D. Studentship
4 years of student stipend and consumables
~£155,000
- 2019 – 2023 **Molecular subtypes of cancer-associated fibroblast (CAF) and personalised targeting in Pancreatic Ductal Adenocarcinoma**
Medical Research Council (MRC) industrial Collaborative Awards in Science and Engineering (iCASE) Studentship
~£151,000
- 2018 – 2019 **Functional stratification and companion diagnostic assay to predict neoadjuvant radiotherapy response in rectal cancer**
Medical Research Council's (MRC) Confidence in Confidence (CiC)
£126,573 (including indirect + estate costs; Co-Is: Profs. Chopra, Melcher, Brown, ICR)
- 2019 – 2022 **Defining “bad biology” – early risk stratification of patients with aggressive phenotype pancreatic cancer**
Emmac Life Sciences – Clinical Ph.D. Studentship
My role: co-supervisor
~£100,000
- 2018 – 2019 **Identifying immune targets in primary vs. metastatic colorectal cancer**
Pierre Fabre, Paris, France
€96,000
- 2018 – 2019 **Clinical and molecular landscapes of triple-negative breast cancer in India and application to improved treatment decisions**
Global Challenge Research Fund (GCRF)
£64,396 (LMIC Partner: Dr. A. Korlimarla, SJRI, Bangalore, India)
- 2018 – 2019 **Validation of companion diagnostic assays for treatment prediction in routine clinical practice**
Faringdon's Proof of Concept Fund
£49,100
- 2017 – 2020 **Clinical collaborative funds for companion diagnostic assay (using research platform)**
Funds for clinical studies from Spain, Italy, France and Singapore clinical studies
£46,589
- 2017 – 2019 **Immune predictors of response to short and long course neo-adjuvant radiotherapy in rectal tumours**
NIHR Biomedical Research Centre (BRC) - Seed Grant
£15,000

Current Grants (as Collaborator)

- 2018 – 2023 **Clinically applicable biomarkers to early diagnosis, patient risk stratification and therapy response in pancreas** (*renewed from previous funded grant*)
 PI: Prof. Aldo Scarpa, (ARC)-NET, University of Verona, Italy
 €2 million
My Role: Collaborator
Sadanandam Lab component: Salary for a Bioinformatician and consumables for profiling 100s of pancreatic cancer samples
- 2018 – 2021 **Pancreatic Desmoplasia**
 Cancer Research UK Gore Grant
 PI: Prof. Raj Chopra
My role: Collaborator
- 2019 – 2022 **CELAC and European consortium for a personalized medicine approach to Gastric Cancer (LEGACy)**
 European Commission – H2020 Research and Innovation Framework Programme
 €3,994,306
My Role: Immunogenomics Collaborator and Advisor (we will be providing our immune assays as a collaboration)
- 2014 – 2019 **Targeting microRNAs driving colon carcinogenesis**
 Cancer Research UK Career Establishment Award
 PI: Dr. Nicola Valeri, ICR
 £940,000
My role: Collaborator
- 2015 – 2018 **Investigating the role of stromal Dkk3 in breast cancer progression and metastasis**
 Worldwide Cancer Research
 PI: Dr Fernando Calvo, Institute of Biomedicine & Biotechnology of Cantabria, Spain
 £223,737
My role: Collaborator
- 2016 – 2022 **Characterization of the non-catalytic functions of AKT and other AGC kinases in cancer**
 Cancer Research UK Programme Foundation Award
 PI: Dr. Igor Vivanco, ICR
 £1,400,000
My role: Collaborator
- 2015 – 2021 **A systems approach for characterising functional pathway dependencies in mutant EGFR lung adenocarcinoma**
 Cancer Research UK Career Establishment Award
 PI: Dr. Paul Huang, ICR
 £1,007,000
My role: Collaborator
- 2017 – 2019 **Precision Prevention of Breast Cancer in High-Risk Individuals**
 National Cancer Institute (NCI), USA - Breast SPORE Career Enhancement Award
 PI: Dr. Nagarajan Kannan, Mayo Clinic, Rochester, MN, USA
 \$200,000
My Role: Collaborator

Past Grants (as PI/Co-PI; Successfully Completed)

- 2015 – 2018 **Characterizing EIF5A-1 as a personalized therapeutic target for claudin-low and basal-like breast cancer subtypes**
 Breast Cancer Now (BCN) - Project Grant
 £195,000
- 2015 – 2018 **Integrating molecular and metabolic profiles to identify subtype-specific therapies in pancreatic ductal adenocarcinoma**
 Pancreatic Cancer Research UK (PCUK) – Future Research Leaders Fund
 £100,000
- 2016 – 2018 **Development of clinically relevant assays to stratify colorectal cancer using multi-omics signatures**

Rostrees Trust Consumables Fund
£14,840

2014 – 2018

ICR Startup fund

(One 3-year postdoc, one 3-year Scientific Officer, and partial funding for one Ph.D. student to overlap with above PCUK fund; consumables - £188,000/three years; profiling fund: £50,000; equipment fund - £25,000; shared equipment (with Valeri lab) of ~£370,000)

2017

How do the molecular landscapes of pre-menopausal triple-negative breast cancers differ between Indian and Western populations?

Newton Fund through Higher Education Funding Council for England (HEFCE)
£17,644 (PI: Dr. Maggie Cheang, ICR; Drs. Sridhar and Korlimarla, SJRI, India;
My role: Co-Investigator)

2015 – 2017

Characterizing collateral lethality in breast cancer

Breast Cancer Now (BCN) - Pilot Grant
£25,000

2016 – 2017

Validating hypusine-biosynthesis pathway as a potential personalized therapeutic target by inhibiting spermidine biosynthesis via AMD1 in aggressive breast cancer subtypes

Faringdon's Proof of Concept Fund
£37,567

2014 – 2016

Characterization of subtype-specific metabolism and associated therapeutic targets in pancreatic ductal adenocarcinoma

Pancreatic Cancer Research UK (PCUK) – Research Innovation Fund
£75,000

2014 – 2016

Validation of colorectal cancer molecular subtype-specific biomarkers to predict response to anti-EGFR agents

NIHR - Biomedical Research Center – Seed Fund
£39,000

2014 – 2017

Erasmus Programme Fellowships for summer training - three different funds

2014

ICR's Undergraduate Vacation Scholarship Scheme

Engineering and Physical Sciences Research Council (EPSRC)

2011 – 2013

Identification and characterization of instructive molecular subtypes of pancreatic neuroendocrine and intestinal carcinoid tumours

Swiss National Science Foundation (SNSF)
Prof. Douglas Hanahan, ISREC, Switzerland
CHF 755,000

My Role: Secondary Advisor/Collaborator (also co-authored the grant).

2009 – 2013

Identification of fusion transcripts specific to basal-like breast cancer using massively parallel sequencing technology

Department of Defense (DOD) BCRP Postdoctoral Fellowship
\$270,000

Mentors: Drs. Douglas Hanahan and Joe W. Gray

Past Grants (as Collaborator)

2014 – 2017

Dechiphering tumor/tumor microenvironment cross-talk in adaptive resistance to therapy in melanoma (using single cell genomics)

Swiss National Science Foundation (SNSF)
PI: Prof. Olivier Michielin, Swiss Institute of Bioinformatics (SIB), Lausanne, Switzerland
CHF ~2 million

My Role: Collaborator; bioinformatics analysis of single cell data

2014 – 2017

High-throughput ex vivo drug screening in patients with advanced cancer

NIHR - Biomedical Research Center (BRC) – Flagship Award
PI: Dr. Nicola Valeri, ICR
£300,000

My Role: Co-I; bioinformatics assessment of organoids

PEER-REVIEWED PUBLICATIONS

Research Publications from the ICR***Corresponding/Co-corresponding/co-senior author publications:***

1. Neuzillet, C*, Tijeras-Raballand., A, Ragulan, C., Cros, J., Patil, Y., Martinet, M., Erkan, M., Kleeff, J., Wilson, J., Apte, M., Tosolini, M., Wilson, A.S., Delvecchio, F.R., Bousquet, C., Paradis, V., Hammel, P., **Sadanandam, A***, Kocher, H.M*. Inter- and intra-tumoral heterogeneity in cancer-associated fibroblasts of human pancreatic ductal adenocarcinoma. **Journal of Pathology** (accepted for publication) 2018. * - **co-senior and co-corresponding authors.**
2. Smyth, E. C*, Nyamundanda, G*, Cunningham, D., Fontana, E., Ragulan, C., Tan, I. B., Lin, S. J., Wotherspoon, A., Nankivell, M., Fassan, M., Lampis, A., Hahne, J., Davies, A., Lagergren, J., Gossage, J., Maisey, N., Green, M., Zylstra, J., Allum, W., Langley, R. E., Tan, P., Valeri, N., **Sadanandam, A.** A 7-gene Signature Assay Improves Prognostic Risk Stratification of Perioperative Chemotherapy Treated Gastroesophageal Cancer Patients from the MAGIC Trial. **Annals of Oncology** (in press), 2018. * - co-first authors - **An Editorial review of this publication is available online.**
3. Eason, K., Nyamundanda, G. and **Sadanandam, A.** PolyClustR: Defining communities of reconciled cancer subtypes with biological and prognostic significance. **BMC Bioinformatics**,19(1);182, 2018.
4. Nyamundanda, G., Poudel, P., Patil, Y. and **Sadanandam, A.** A novel statistical method to diagnose, quantify and correct batch effects in genomic data. **Scientific Reports**, 7; 10849, 2017.
5. **Sadanandam, A***, Wullschleger, S., Lyssiotis, C., Grotzinger, C., Barbi, S., Bersani, S., Korner, J., Wafy, I., Mafficini, A., Lawlor, R.T., Asara, J.M., Blaker, H., Cantley, L.C., Wiedenmann, B., Scarpa, A*, and Hanahan, D*. A cross-species analysis in pancreatic neuroendocrine tumors reveals molecular subtypes with distinctive metastatic, developmental, and metabolic characteristics. **Cancer Discovery**, 5; 1296-1313, 2015. *- *co-corresponding authors.*
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- *Smyth, E.*, Nyamundanda, G., Cunningham, D., Tan, I., Fontana, E., Ragulan, C., Okines, A., Lin, S., Wotherspoon, A., Nankivell, M., Peckitt, C., Valeri, N., Langley, R., Tan, P., **Sadanandam, A.** Prognostic gene expression signature in chemotherapy treated patients from the MAGIC trial. ESMO Asia 2017 (#1930), Singapore, Nov 2017. *Annals of Oncology*, doi.org/10.1093/annonc/mdx660 (Proffered paper session 4; oral presentation).
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- *Homicsko, K and **Sadanandam, A.*** New molecular classification of colorectal cancer. ESMO, Madrin, Spain, 2014. Published in Annals of Oncology, 25 (suppl_4): iv12-iv13, 2014.

PATENTS

From the ICR

- Patient classification and prognostic method (GEP-NET) – Priority Patent - EP18425009.0; 16-Feb-2018, ICR, London, UK.
- Prognostic and treatment response prediction in gastric cancer – Priority Patent CSC/BP7295892; 12-Oct-2017, ICR, London, UK (PCT to-be-filed by 12 Oct).

External to the ICR

- Entitled to a share of royalty received by the licensor for a patent entitled “Colorectal cancer classification with different prognosis and therapeutic responses” – Patent number PCT/IB2013/060416 filed 26-Nov-2013, EPFL, Lausanne, Switzerland.
- Molecular predictors of therapeutical response to specific anti-cancer agents -13/401,780, 21-Feb-2012, LBNL, Berkeley, CA, USA.

RESEARCH RESOURCES DEVELOPED

Clinical Biomarker Assays Developed and Made Available for External Research Purpose

Developed clinical and potential companion diagnostic biomarker assays using nCounter platform (NanoString Assay) to stratify patients:

- a) NanoCRC - to stratify colorectal cancer samples into CRCAssigner and CMS subtypes for potential therapy (including anti-EGFR therapy) responses and prognosis;
- b) GCRiskAssigner – to stratify gastro-esophageal cancer into high or low risk of death for perioperative chemotherapy along with surgery;
- c) PanNETAssigner - to distinguish pancreatic neuroendocrine tumours into different subtypes with prognostication;

Bioinformatics (selected) Resources Developed and Made Publicly Available

- R packages - ExploBatch; polyClustR; intPredict; idSample; PhenMap; iPhenMap; populaR; iDissect and other small to large tools and pipelines – available at <https://github.com/syspremed/polyCluster>
- Searchable database and webserver - Mammalian Cell Adhesion Molecule (MCAM, version 3.0) - <https://app1.unmc.edu/mcam/Search.cfm>