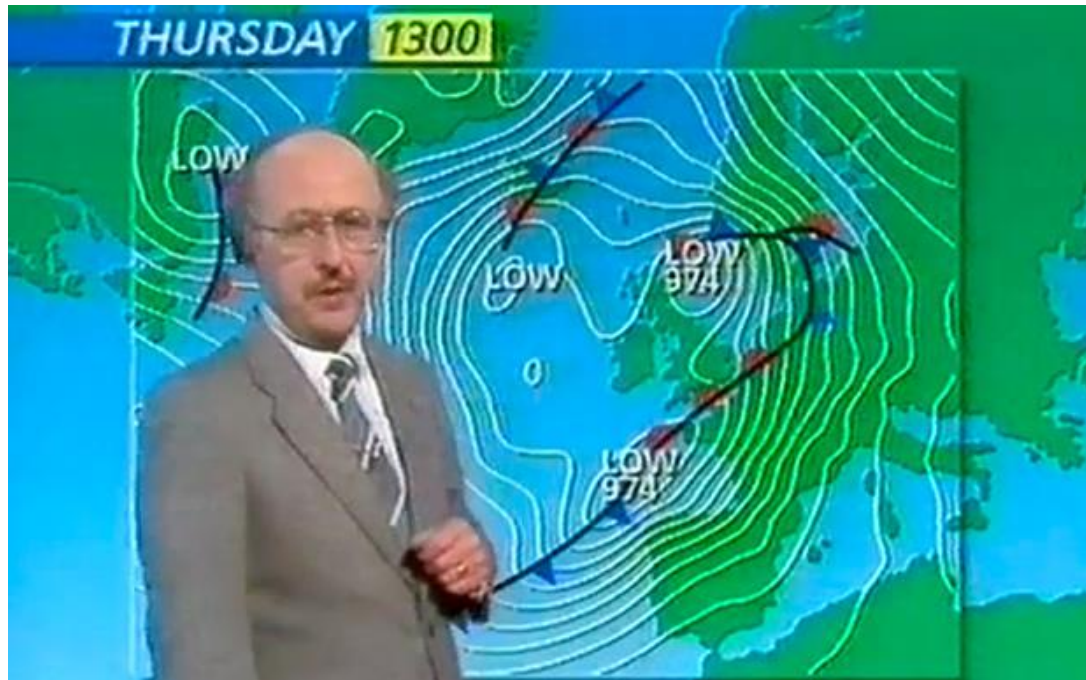


30 years of the Edinburgh Stroke Research Group: A haphazard (not random) set of memories

Peter Sandercock



1987 Michael Fish's forecast



"Earlier on today, apparently, a woman rang the BBC and said she heard there was a hurricane on the way; well, if you're watching, don't worry, there isn't, but having said that, actually, the weather will become very windy, but most of the strong winds, incidentally, will be down over Spain and across into France"

1987

- Charles Warlow takes up Chair of Neurology
- Terry Waite taken hostage in Lebanon (released 1991)
- Margaret Thatcher re-elected
- Kings Cross fire
- CoE synod agrees to the ordination of women
- £1M *Operation Deepscan* fails to locate the Loch Ness Monster
- IKEA opens its first UK Branch in Warrington
- Birth of Andy Murray

Bramwell-Dott Building



The 'Bramwell Dotters'



1988 technology



PC: No mouse, no windows
No internet
No Google
JANET



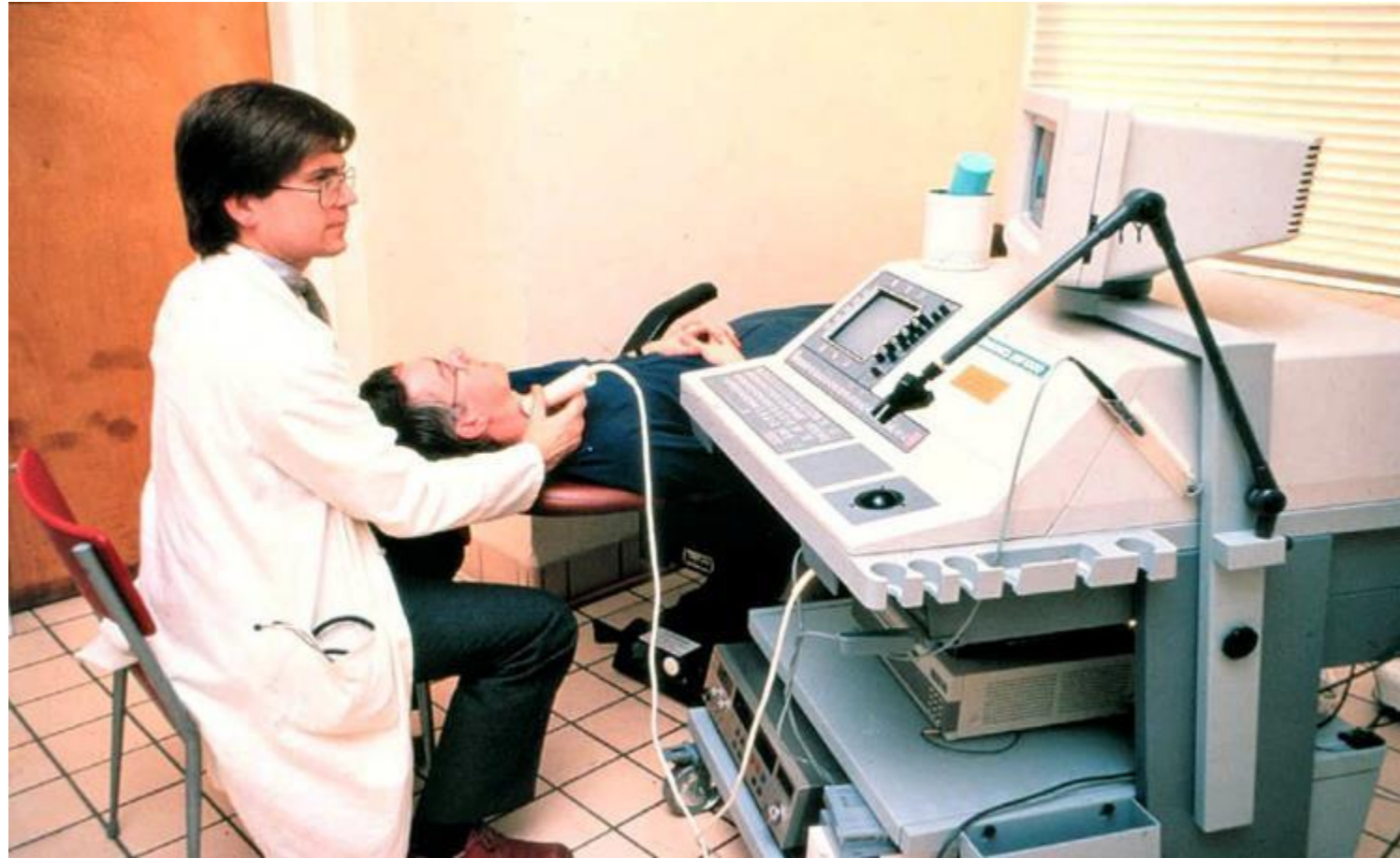
Laptop – no
'Portable' computer
Weight 3-5 kg!



Communication aids
Mobile phone – 'the brick'
Fax machine
Pager

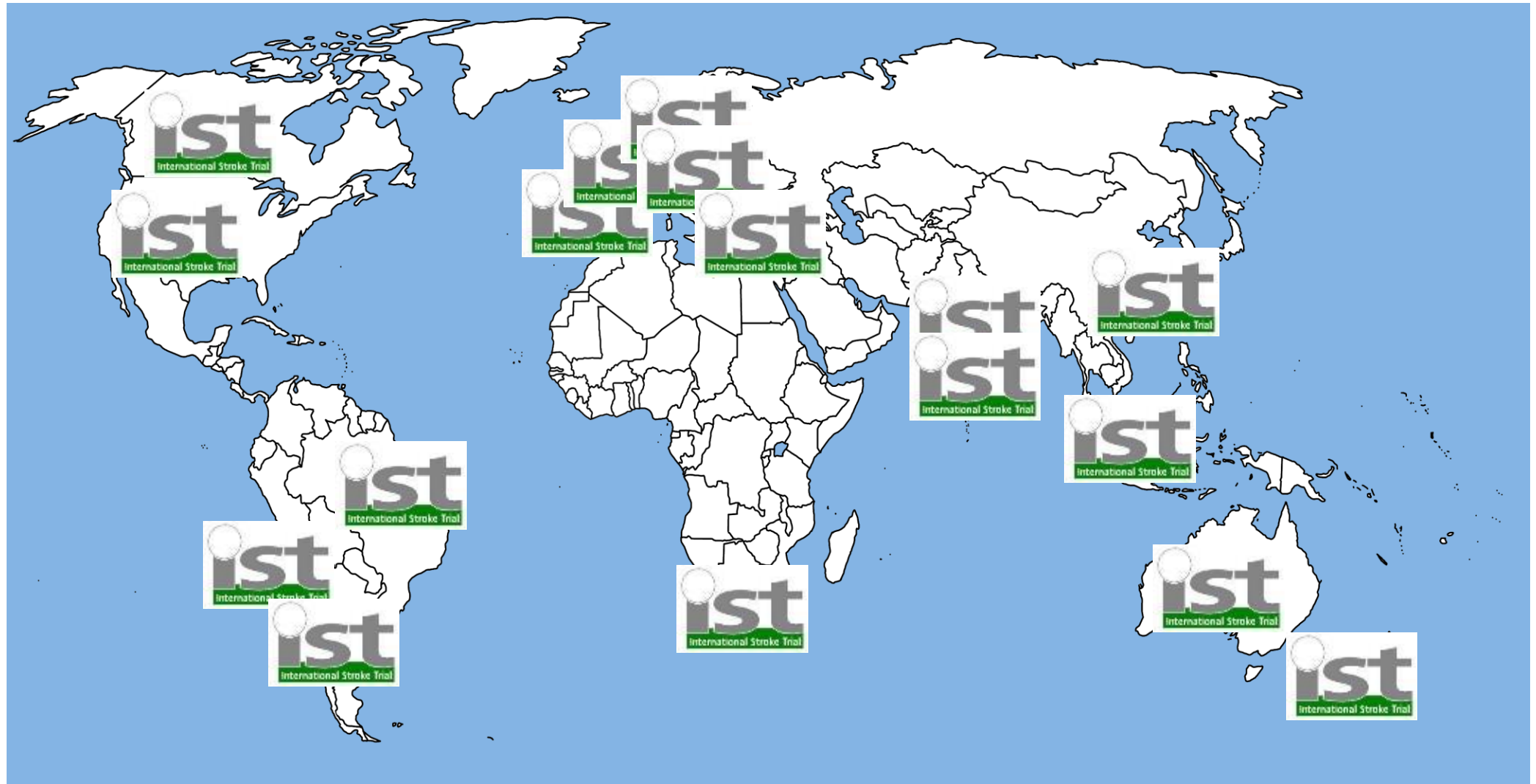


1988



Screening patients to find candidates for ECST

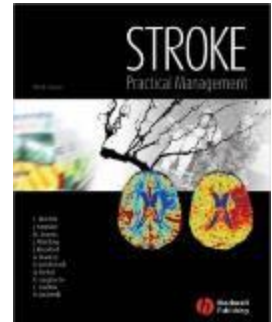
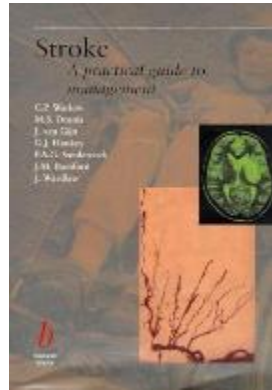
IST-1 1991-7: 467 hospitals in 37 countries recruited 19,435 patients



1994 Cochrane Stroke Group



'The book' team: 3 editions: 1996, 2001, 2008





**1996:
A big high-
the IST
results
meeting
Munich**



FOOD 1-2-3 1996 onwards

Routine oral nutritional supplementation for stroke patients in hospital (FOOD): a multicentre randomised controlled trial

*The FOOD Trial Collaboration**

Summary

Background Undernutrition is common in hospital patients with stroke, can develop or worsen in hospital, and is associated with poor outcomes. We aimed to establish whether routine oral nutritional supplements improve outcome after stroke.

Methods The FOOD trials are a family of three pragmatic, multicentre, randomised controlled trials. We measured the outcomes of stroke patients who could swallow and who were randomly allocated normal hospital diet or normal hospital diet plus oral nutritional supplements until hospital discharge. The primary outcome was death or poor outcome (modified Rankin scale [MRS] grade 3–5), 6 months after enrolment, measured unaware of treatment allocation. Analysis was by intention to treat.

Findings Between Nov 1, 1996, and July 31, 2003, 4023 patients were enrolled by 125 hospitals in 15 countries. Only 314 (8%) patients were judged to be undernourished at baseline. Vital status and MRS at the end of the trial were known for 4012 and 4004 patients, respectively. Supplemented diet was associated with an absolute reduction in risk of death of 0·7% (95% CI –1·4 to 2·7) and an increased risk of death or poor outcome of 0·7% (–2·3 to 3·8).

Interpretation We could not confirm the anticipated 4% absolute benefit for death or poor outcome from routine oral nutritional supplements for mainly well nourished stroke patients in hospital. Our results would be compatible with a 1% or 2% absolute benefit or harm from oral supplements. These results do not support a policy of routine oral supplementation after stroke.

Lancet 2005; 365: 755–63

See Comment

*Members listed at end of report

Correspondence to:

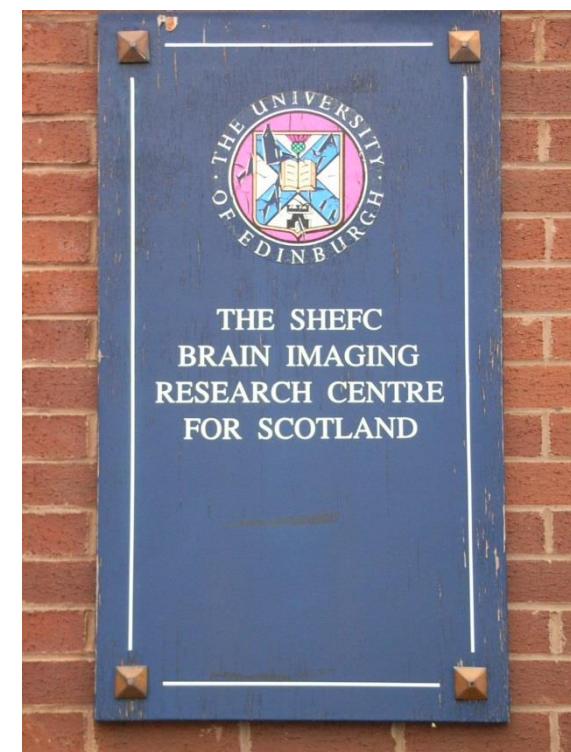
Prof Martin Dennis,
Department of Clinical
Neurosciences, Western General
Hospital, Edinburgh EH4 2XU, UK
martin.dennis@ed.ac.uk

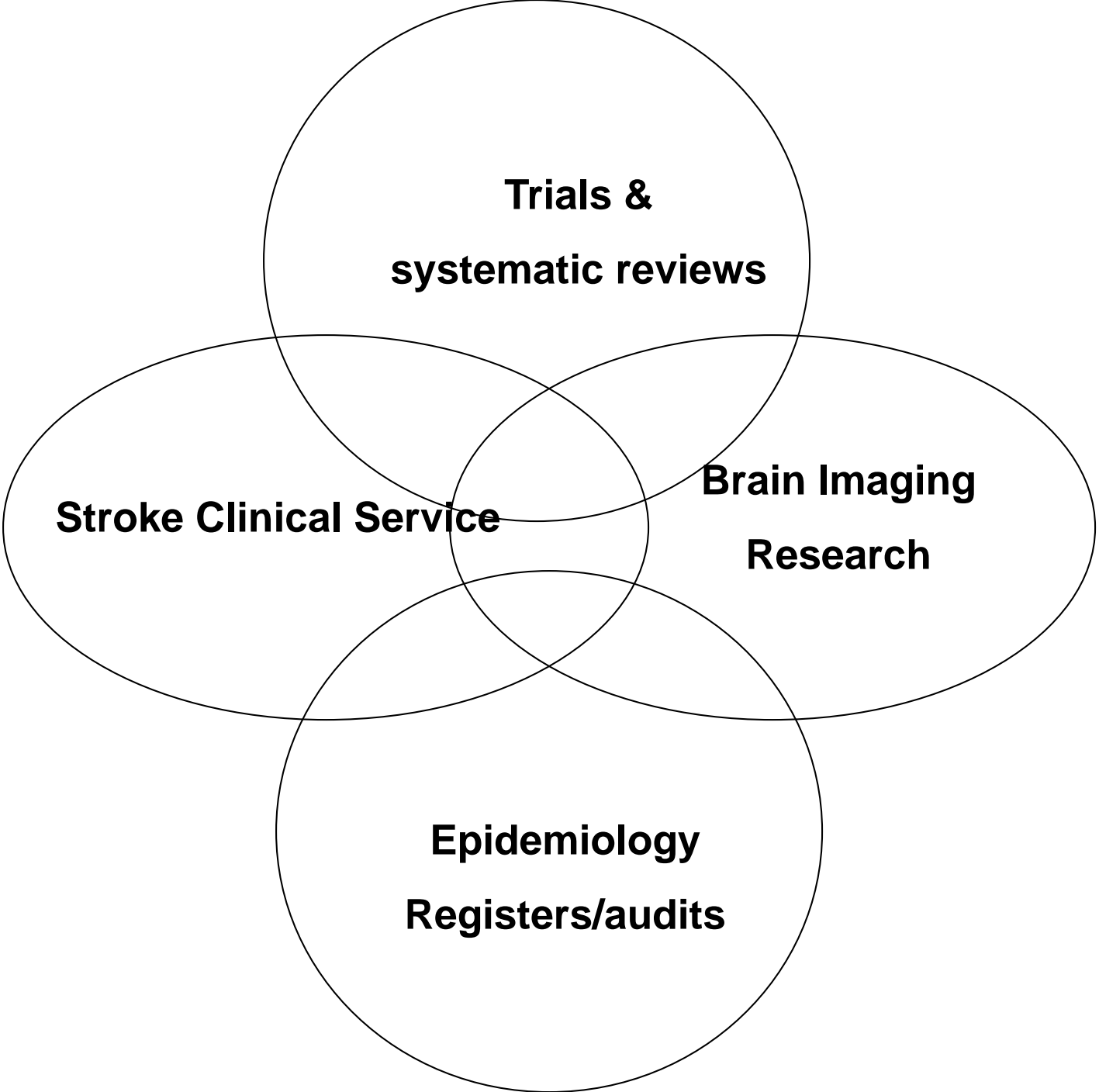
1998 SBIRC at WGH



Western General Hospital

CAR PARK GUIDE





**Trials &
systematic reviews**

Stroke Clinical Service

**Brain Imaging
Research**

**Epidemiology
Registers/audits**

2002

Department of Clinical Neurosciences

University of Edinburgh



NEWS

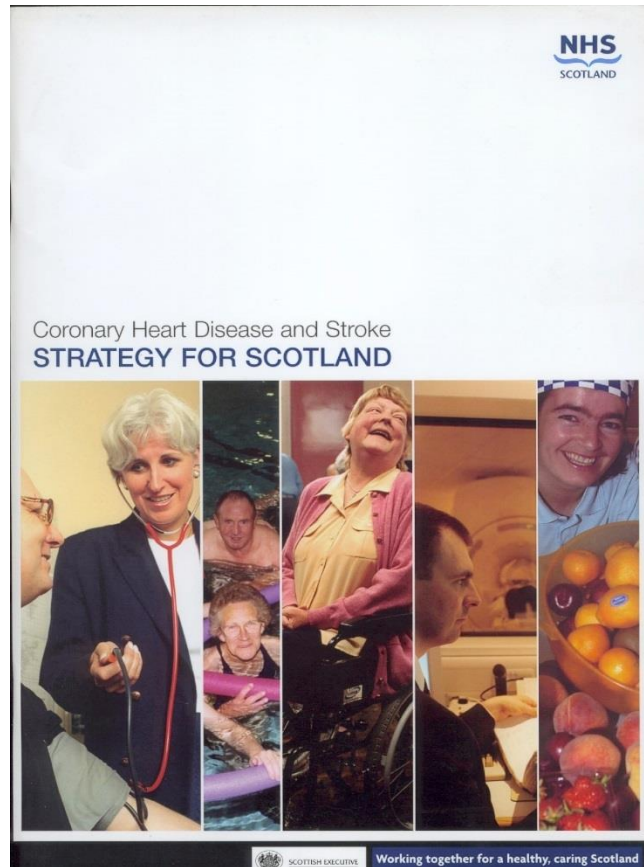
- The Scottish Intracranial Vascular Malformation Study (SIVMS)
- The Third International Stroke Trial (IST-3)
- GALA: General vs Local Anaesthesia for Carotid Endarterectomy

Click on an item for more information.

Contents

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 - [Research Interests](#)
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- Stroke Research Group
 - [Cochrane Stroke Review Group](#)
 - [The FOOD Trial](#)
 - [The CLOTS Trial](#)
 - [General vs Local Anaesthesia for Carotid Endarterectomy: GALA](#)
 - [The Third International Stroke Trial \(IST-3\): Thrombolysis for acute ischaemic stroke](#)
 - [International Stroke Trials Collaboration Newsletters](#)
 - [The Scottish Intracranial Vascular Malformation Study \(SIVMS\)](#)
 - [On-line Diagnosis and Models for Prediction](#)
 - [Acute Stroke Service at the Western General Hospital Edinburgh](#)
- [SHEFC Brain Imaging Research Centre for Scotland](#)
- [The Creutzfeldt-Jakob Disease Surveillance Unit](#)
- [The Edinburgh Centre for Neuro-Oncology](#)

Scottish National Strategy for Stroke



- Launched in 2002
- Targets included:
 - Establish managed clinical networks
 - Stroke units
 - More rapid imaging
 - Manpower plan & Training
 - National audit
 - Improved IT

2002 randomised trials (+GALA)

The International Stroke Trials Collaboration



FOOD
trial

A Multicentre Trial to Ev

- CLOTS
- PROTOCOL
- SUMMARY
- INFORMATION
- CLOTS NEWS
- DCN HOME

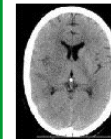
The CLOTS Collaboration

IST-3

- Main
- Full Protocol
- More Information

Would You Randomise This Patient?

We are looking for volunteers to read about 50 CT scans. All are welcome to take part, from anywhere in the World!



The signs of acute ischaemic stroke on a CT scan may be subtle. Would you spot them? Please visit our new site and register to join! [Click here for more...](#)

The main aim of this study is to standardise the interpretation of CT scans to guide the use of thrombolysis. In order to achieve this we will:

- Determine the importance of individual CT features ("signs") of acute ischaemia for predicting clinical outcome after thrombolysis.
- Determine the inter- and intra- rater reliability for CT acute infarct signs and whether or not it can be improved?
- Standardise the radiological classification of haemorrhagic transformation and primary intracerebral haemorrhage and its relationship to clinical signs and outcome.

Systematic review of trials

- [Full text of updated Cochrane Systematic Review](#)

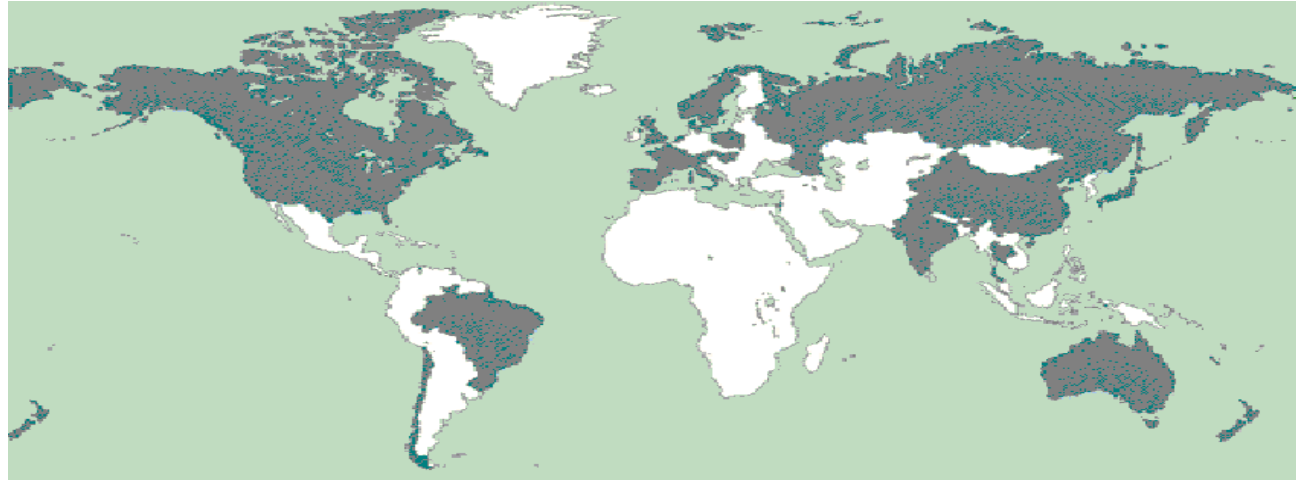
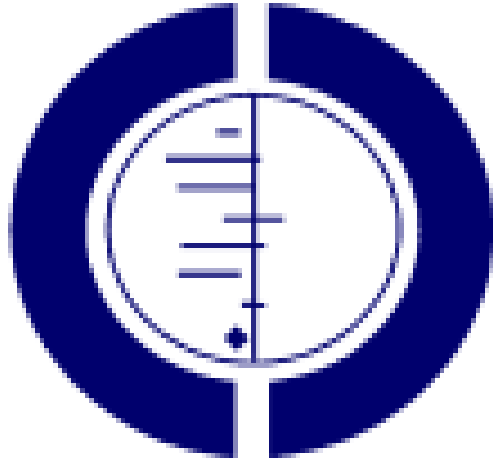
On-line Multimedia Presentations

- [IST-3 Protocol Summary Slides](#)
[Download above slides in PowerPoint format.](#)

Protocol Summary



Cochrane Stroke Review Group (CSRG): 209 reviewers from 28 countries preparing systematic reviews on the prevention, treatment and rehabilitation of stroke



Cochrane Library May 2002 edition includes, from CSRG

- 63 completed systematic reviews
- 29 protocols of reviews in progress
- 4396 reports of stroke trials

Epidemiology - SIVMS

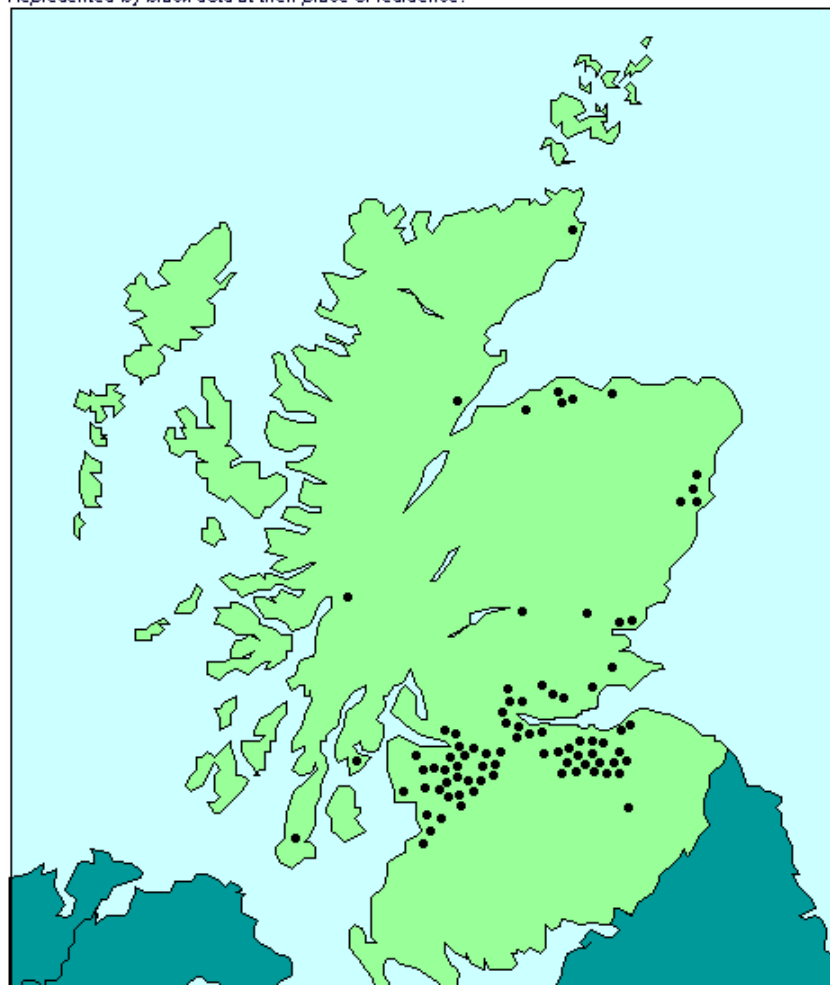


- [All cases](#)
- [Brain arteriovenous malformations](#)
- [Dural arteriovenous malformations](#)
- [Cavernous malformations](#)
- [Venous malformations](#)

The Scottish Intracranial Vascular Malformation Study

Anonymised maps of the people enrolled in the first year of our study

85 people were diagnosed with an IVM between 1st January 1999 and the end of 1999
Represented by black dots at their place of residence.

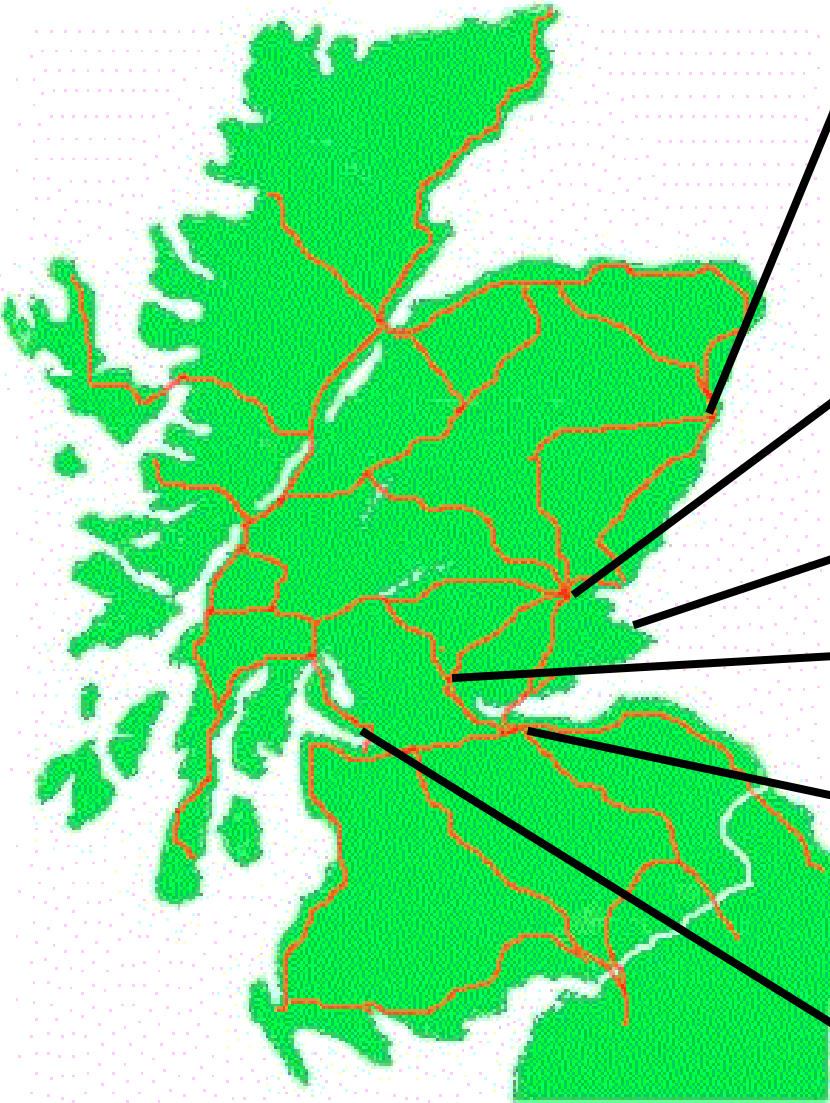


2007 Technology has changed a bit!



Brain Imaging

SINAPSE



1998 - Brain Research Imaging Centre (BRIC) opens at WGH

2006 - the Neuroimaging Sciences project administration mechanisms merged with the Clinical Research Facility

2016 - BRIC became part of Edinburgh Imaging & Now called Edinburgh Imaging Facility WGH

2017 - a second Brain Research Imaging Facility opened developed at the Royal Infirmary of Edinburgh



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Welcome

The CAMARADES collaboration provides a supporting framework for groups involved in the systematic review and meta-analysis of data from animal studies in experimental stroke.

Our interests range from identifying potential sources of bias in animal work; developing recommendations for improvements in the design and reporting of animal studies; developing the meta-analysis methodology the better to apply it to animal studies; through to the selection of candidate stroke drugs for clinical trial.

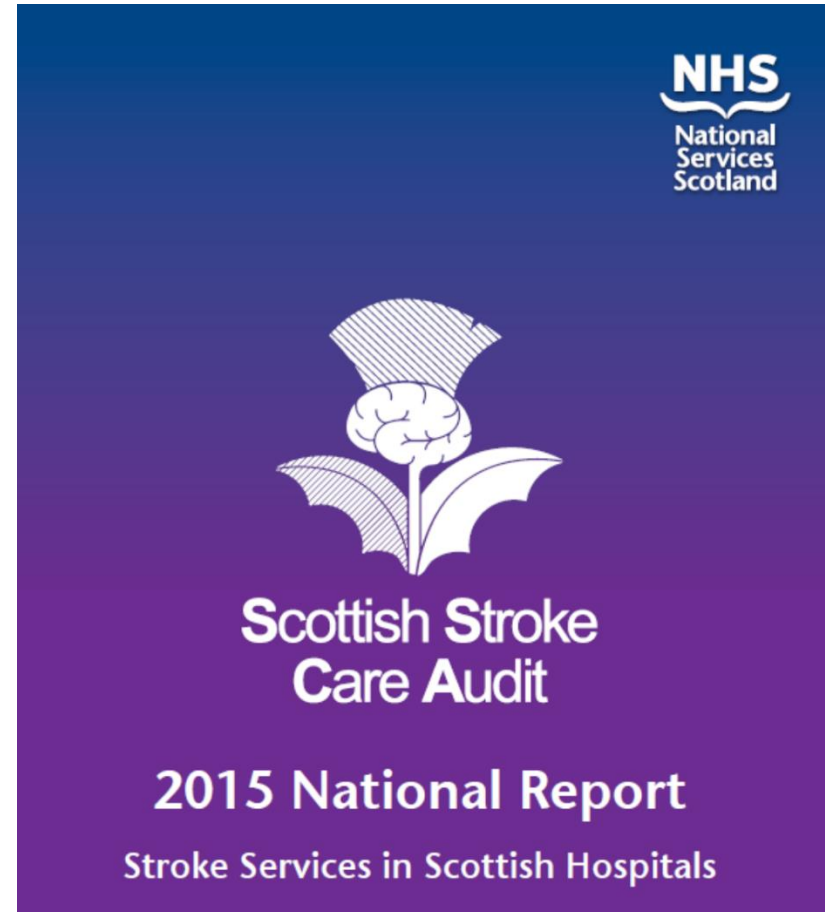
CAMARADES aims to provide a central focus for data sharing; to act as a resource for those wishing to carry out such reviews; to provide a web based stratified meta-analysis bioinformatics engine (under development!); and to act as a repository for completed reviews.

While the CAMARADES data set is curated from Edinburgh it is mirrored at the National Stroke Research Institute in Melbourne Australia and is the shared property of all those contributing data.

To contact us:
Malcolm Macleod
Department of Clinical Neurosciences
University of Edinburgh
Edinburgh, UK
EH4 2XU

Registers and Audits

- LSR
- Stroke audit
- SSCAS
- National Strategy



NHSQIS Standards, Summary Table (2005/2006)

Green – meet or exceed National Standards

Red - Do not meet National Standards but are performing better than the average for Scotland in 2005

- Do not meet National Standards and are performing worse than the average for Scotland in 2005.

Hospital	Admitted to SU <= 1 day %	Swallow <= 1 day %	Brain scan <= 2 days %	Aspirin <= 2 days %	NV clinic <= 14 days %	NV clinic <= 7 days %
2005 Scotland – wide	50	44	79	56	58	30
Royal Infirmary Edinburgh	50	31	82	50	NR	NR
St Johns Hospital (Livingston)	25	53	74	61	23	7
Western General Hospital	55	38	94	75	77	27

Glasgow Royal Infirmary	64	81	81	60	n/a	n/a
Stobhill Hospital	49	67	90	67	n/a	n/a
Western Infirmary Glasgow	82	83	97	86	n/a	n/a
Southern General Hospital	90	67	97	78	n/a	n/a
Victoria Infirmary Glasgow	8	42	88	65	n/a	n/a

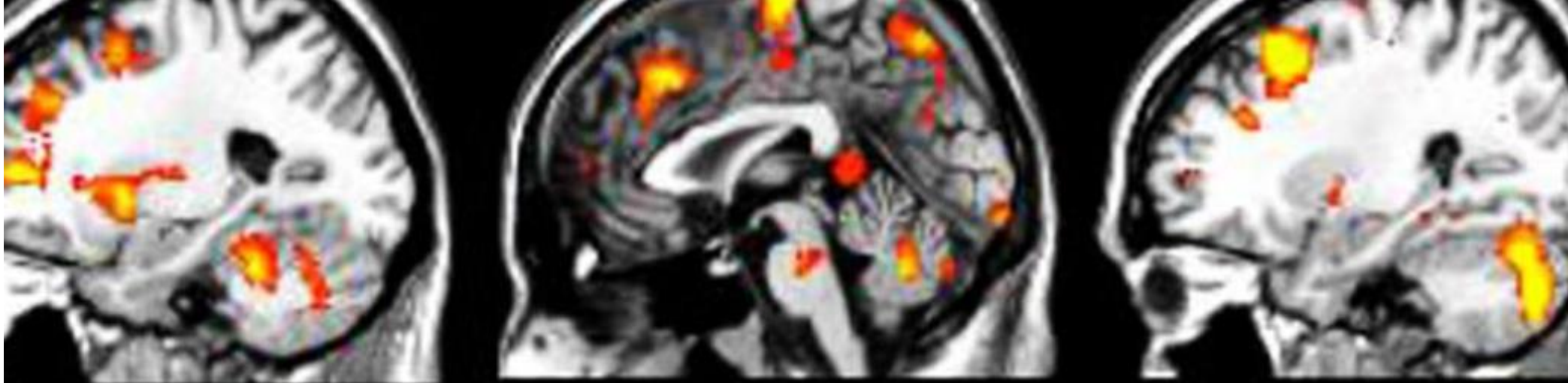
2015 The move to Little France

And this is where I start to lose track!

...saved by the CCBS website

(congratulations to the website team!)





CENTRE FOR CLINICAL BRAIN SCIENCES

[Centre for Clinical Brain Sciences home](#)

Research

[Diagnoses & disease targets](#)

[Research methodologies](#)

[Featured publications](#)

[Research impact](#)

[Home](#) > [Clinical Brain Sciences](#) > [Research](#)

[Contact us](#)

Research

CCBS Investigators study the causes, consequences and treatment of major brain disorders.

Diagnoses & disease targets

Information for scientists about our major brain condition targets.

Research methodologies

Research at CCBS is multi-disciplinary, spanning a wide spectrum of methodologies from molecular analyses through human stem cell biology to neuroimaging and clinical trials.

Featured publications

CCBS Investigators publish >300 papers every year in Medline-indexed journals. Below is a small selection of publication highlights from the last three years.

Research impact

Our research has major impacts on health, wellbeing, clinical practice and health policy.

Research methodologies

Research at CCBS is multi-disciplinary, spanning a wide spectrum of methodologies from molecular analyses through human stem cell biology to neuroimaging and clinical trials.

[Browse our research by brain condition instead](#)

Biobanking & disease registers



Disease registers and biobanks permit detailed phenotyping for clinical and biological studies.

Clinical research & trials



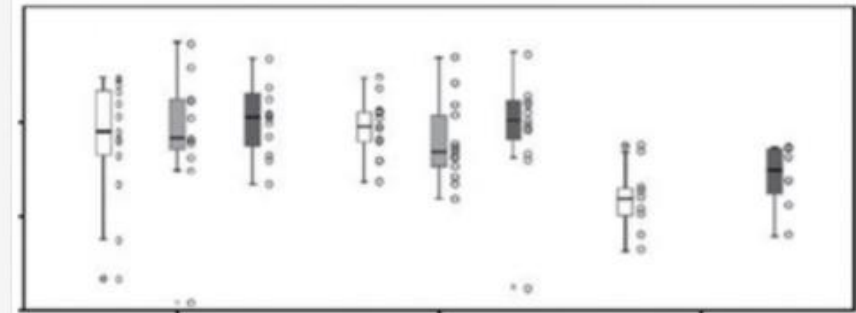
Clinical research - investigating the people affected by brain diseases - is a mainstay of CCBS research.

Complex trait genetics



We aim to dissect the genetic factors that cause or predispose people

Meta-analysis, systematic review & health economics

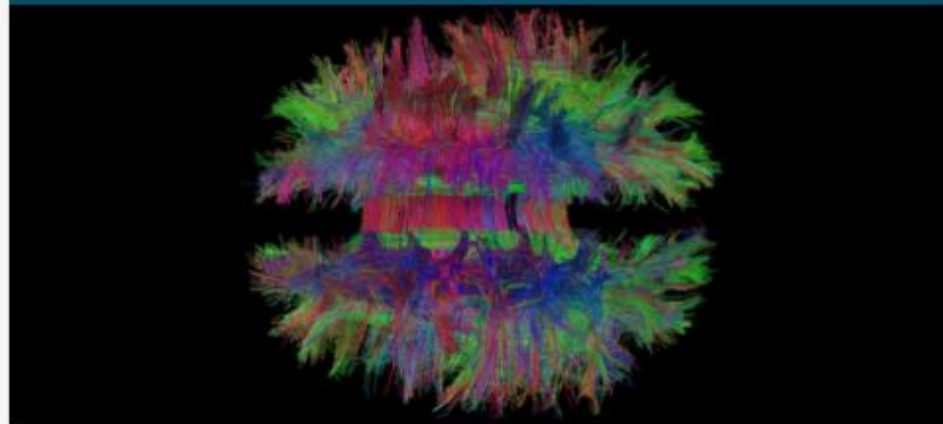


Molecular/cellular biology & disease modelling



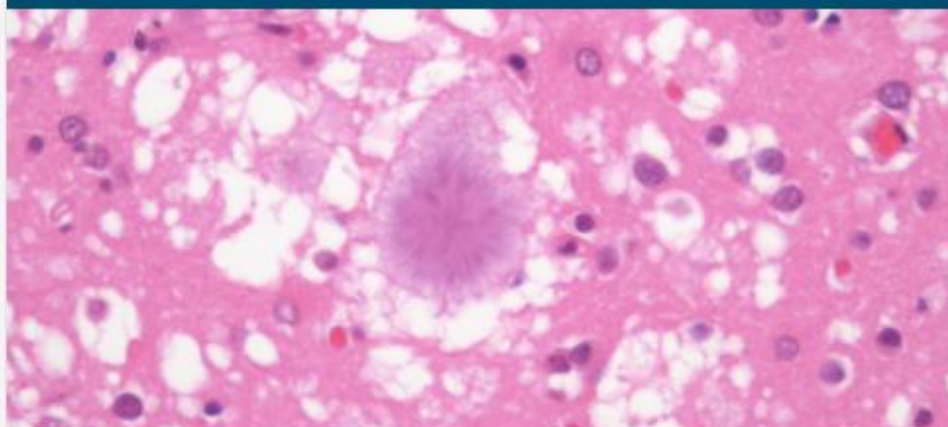
CCBS research spans the spectrum of molecular and cellular biology through to in vivo disease modelling.

Neuroimaging



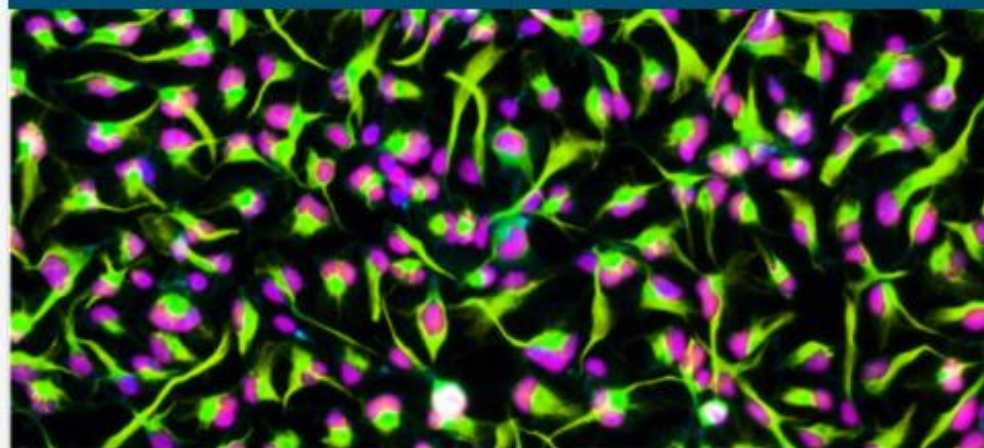
Imaging the function and structure of the brain using state-of-the-art techniques.

Neuropathology



The neuropathologists collaborate widely across CCBS and beyond, and also play a major national role in brain and tissue banking.

Stem cell biology & regenerative neurology



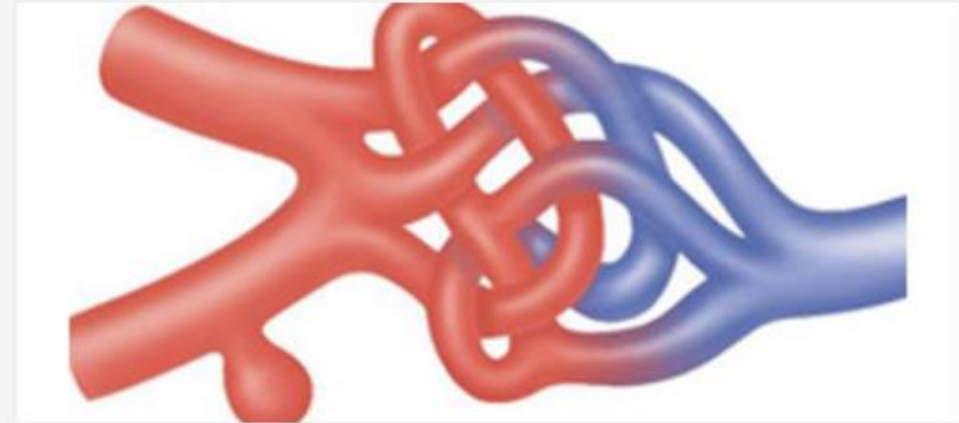
State-of-the-art stem cell research to model brain diseases.

The multi-disciplinary study of conditions that cause brain vascular injury, such as stroke, is a major focus of CCBS research.

Section head: Professor Martin Dennis

The stroke group

The stroke group is a large and internationally recognised team of academic clinicians and researchers. Research spans basic to translational aspects of stroke and influences clinical guidelines and [NHS](#) practice.



Example brain vascular disease projects

1224x751

Research theme	PI
Detection, prevention and treatment of complications after stroke	Martin Dennis
Systematic reviews & meta-analyses of animal models	Malcolm Macleod
Stroke rehabilitation and prevention of complications	Gillian Mead
Research to Understand Stroke due to Haemorrhage (RUSH)	Rustam Al-Shahi Salman
Treatment & biomarkers in acute stroke	Peter Sandercock
Epidemiology and genetics of stroke and its subtypes	Cathie Sudlow
Imaging pathophysiology in acute stroke and cerebral microvascular disease	Joanna Wardlaw
Cost effectiveness of imaging in stroke	Joanna Wardlaw
Trials and meta-analyses in stroke prognosis and treatment	William Whiteley

Trial	Condition	PI
MS-SMART (Multiple Sclerosis - Secondary Progressive Multi-Arm Randomisation Trial)	multiple sclerosis	Peter Connick
Click-East (testing an iPad app for children with autism)	autism	Sue Fletcher-Watson
HAIST (Hypothermia for Acute Ischaemic Stroke Trial)	stroke	Malcolm Macleod
FOCUS (Fluoxetine or Control Under Supervision)	stroke	Gillian Mead
RESTART (REstart or STop Antithrombotics Randomised Trial)	intracerebral haemorrhage	Rustam al-Shahi Salman
IST-3 (Third International Stroke Trial)	stroke	Peter Sandercock
CLOTS (Clots in Legs Or sTockings after Stroke)	stroke	Martin Dennis
CODES (COgnitive Behavioural Therapy for Dissociative (Non-Epileptic) Seizures)	functional disorders	Jon Stone

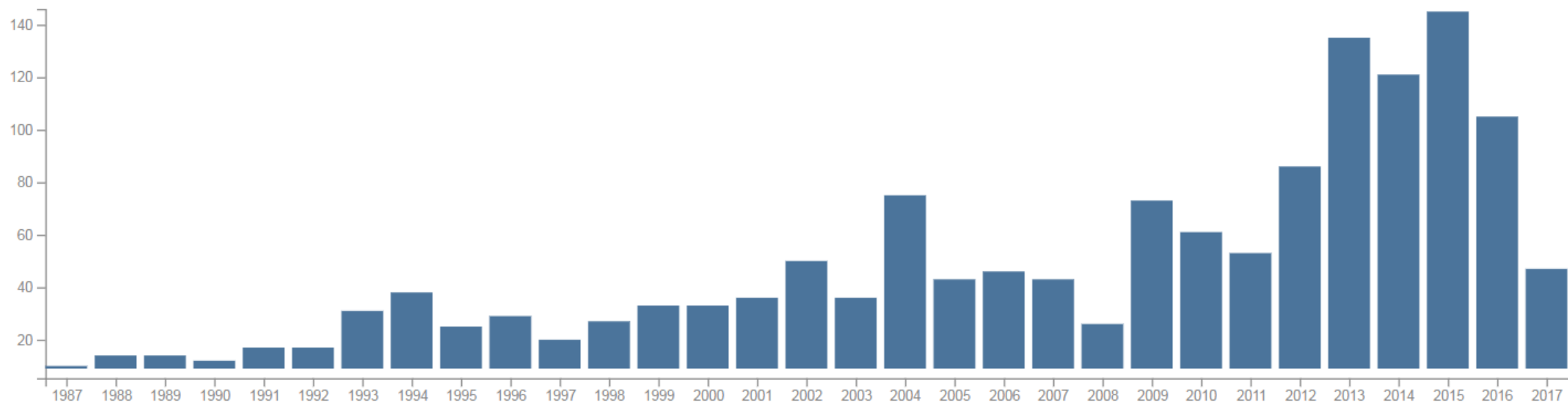
Citation analysis

Web of Science 29/06/17

Search for **AUTHOR:** (WARLOW CP OR SANDERCOCK PA OR SANDERCOCK PAG OR DENNIS MS OR WARDLAW JM OR SALMAN RA OR SALMAN RAS OR SALMAN RASSAS OR SUDLOW CL OR SUDLOW CLM OR SUDLOW CM OR DOUBAL FN OR WHITELEY WN OR MEAD GE OR CVORO V OR WARLOW CP OR SANDERCOCK PA OR SANDERCOCK PAG OR DENNIS MS OR WARDLAW JM OR SALMAN RA OR SALMAN RAS OR SALMAN RASSAS OR SUDLOW CL OR SUDLOW CLM OR SUDLOW CM OR DOUBAL FN OR WHITELEY WN OR MEAD GE OR CVORO V OR FARRALL AJ OR FARRALL AJ OR MACLEOD MR.

This search will not detect articles published in Group Name only (e.g. International Stroke Trial Collaborative Group), so the estimates are probably conservative

Total Publications

1,501

Sum of Times Cited per Year

*h*-index**110**

Average citations per item

35.03

Sum of Times Cited

52,585

Without self citations

49,456

Citing articles

37,779

Without self citations

36,939

..time for the cake!

- Thanks to our resident 'Mary Berry' ...
Aileen
- Thanks to everyone who has contributed to the SRG over the past 30 years
- Apologies for all those I have missed out
- Best wishes for the next 30 years!

Image credits

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- Moira Henderson