Scottish Society of Cytomics
SSC 2014

"Translational Cytometry from Bench to Bedside"

1st Annual Meeting on 25th September 2014

With an exciting line up of
Speakers, Workshops & Awards!

Institute of Medical Sciences
Level 7 Conference Room
University of Aberdeen
Foresterhill, Aberdeen

Local Organisers:
Linda Duncan, Raif Yuecel, David Wilson & Janice Forsyth

Free Registration and Lunch kindly provided by generous sponsors:
Please send your registration to cytometry@abdn.ac.uk

“Translational Cytometry from Bench to Bedside”

KEY SPEAKERS	TOPICS
Paul Smith (University of Cardiff)	Regenerative Medicine
Derek Davies (CRUK London)	Cancer Research
Ian Dimmick (University of Newcastle)	Drug Discovery
Cosimo De Bari (University of Aberdeen)	Clinical Cytometry
John Campbell (NSL Edinburgh)	Immunology
Adriano Rossi (MRC Edinburgh)	Data Analysis Tools
Elizabeth Ballou (University of Aberdeen)	Multicolour Cytometry
David Wilson (NHS Grampian)	Fungal Research

SPECIAL LECTURE:

Paul Smith

Past President of ISAC & Emeritus Professor of Cancer Biology University of Cardiff

Cytomics Of The Tumour Microenvironment: Therapeutic Targeting or “Location, Location, Location!”

SPECIAL WORKSHOP:

Ian Dimmick

Manager, Flow Cytometry Core Facility, Newcastle upon Tyne University

Practical session on 8-10 colour Compensation

Contents

PROGRAMME

Thursday 25th September

08:15	Coffee Reception Registration (Free) and Poster Displaying (IMS level 7 CR)
09:00	Welcome by **Raif Yuecel**, SSC, IFCC, University of Aberdeen
09:10	Welcome by **Peter McCaffery**, IMS Director, University of Aberdeen
09:20	Welcome by **Alistair Brown**, Integrated Centre, University of Aberdeen

Speakers

09:30	**Derek Davies**, CRUK London Sharing the love: Networking amongst cytometrists
09:45	**Elizabeth Ballou,** University of Aberdeen FACS for Fungi: Revealing population heterogeneity and dynamics in fungal pathogens via flow cytometry
10:00	**Ian Dimmick,** Newcastle upon Tyne University A unique approach to compensation, and its verification
10:20	**David Wilson,** NHS Grampian Quality in Clinical Cytometry - do we continue to make the same mistakes?
10:40	COFFEE & Poster Session
11:00	**Derek Davies**, CRUK London Drug effects in multiple rounds of cell division monitored by flow cytometry
11:20	**Cosimo De Bari**, University of Aberdeen Cell therapies for joint repair
11:40	**John Campbell**, National Science Laboratory Edinburgh Translating Research Flow Assays for Characterization of Cellular Therapeutics
12:00	**Adriano Rossi**, MRC Edinburgh Flow cytometric techniques for isolating and analysing leucocytes

12:20 **Special Lecture:**

Paul Smith, University of Cardiff
Cytomics Of The Tumour Microenvironment:
Therapeutic Targeting, or
Location, Location, Location!

13:00 LUNCH & Exhibition (IMS Atrium)

AFTERNOON Parallel Sessions

14:00 - 16:00 Practical session on 8-10 colour Compensation
by Ian Dimmick , IMS, IFCC lab 2.54
Registration is necessary as the number is limited to max 20!

14:00 - 16:00 New technologies by industrial application specialists
at IMS level 7 CR:
Please see the next page.

16:00 - 17:00 SSC Committee meeting (open meeting, IMS level 7)

17: 00 Come together over Wine and Cheese &
Poster Award Winner Announcement
(IMS level 7, everyone welcome)

Afternoon parallel session from 14:00 – 16:00 at IMS level 7 CR

New technologies by industrial application specialists (10min presentations)

Roy Bongaerts, Sony Biotechnology Europe
New multicolour single cell technology: Spectral cell analysis on the Sony SP6800

Laura Schneider, Cell Signaling Technology, NEB Ltd
Considerations to study cell signaling by flow cytometry

Stephen Rackstraw, BD Biosciences
Sorting the Molecules that Count'
- Single Cell Sorting for Next Generation Sequencing'

Jackie Sutter, Kalpana Singh, Miltenyi Biotech Ltd
MACS Flow Cytometry Products: Innovate Solutions for all Your Flow Needs

Lindsey Ward, iLab Solutions LLC
Addressing the Challenges of Operating a Core Facility

Leonor Heleno Wielgosz, Stratocore
Facility Management bringing the focus back to Research

Jasmin Moss Life Technologies, Thermo Fisher
Attune® NxT: The next generation in acoustic focusing cytometry

Scott Cribbes, Nexcelcom Ltd.
Adherent Imaging Cytometry Complementing Flow Cytometric Measurements to address the diverse needs of a research environment

Andrea Valle, De Novo Software
Cytometry Data Analysis using FCS Express

Norman Maidment, Beckman Coulter Ltd
Going Dry: Alternative monoclonal antibody options for Flow Cytometry

eBioscience (TBC)

Keynote Lecturer

Paul Smith

Emeritus Professor of Cancer Biology
Institute of Cancer & Genetics, Innovation and Engagement Representative,
Cardiff University, UK

Paul has been active in academic research in the fields of DNA repair, drug development, cytometry, biochip and imaging for more than 30 years at the MRC Centre in Cambridge and at Cardiff University where he is now Emeritus Professor of Cancer Biology. His research expertise has focused on cancer - encompassing the cell cycle, cancer stem cells and resistance to anticancer drugs. His inventions include a range of anticancer drugs and molecular probes including the DRAQ dyes. He has served the International Society for Advancement of Cytometry, being the President from 2010-12 and successfully introducing the CYTO series of congresses with linked educational initiatives. Earlier, he was responsible for the ISAC's 1st International Cytomics Meeting in Wales in 2003, aimed at introducing the concept of cytomics. His entrepreneurial activities include the co-founding of the technology companies Biostatus Ltd and Biosuspensions Ltd. He is the Science Director of the award-winning start-up Oncotherics Ltd – a new pharmaceutical company that has exploited cytometric techniques in the development of novel hypoxia-activated pro-drugs for the treatment of a wide range of cancers.

Speakers

Derek Davies

Manager of the FACS Laboratory, London Research Institute (LRI),
Cancer Research UK, London, UK

Derek's first post after graduating was in a regional Cytopathology Unit where, amongst other duties, he was introduced to cytometry - using a microdensitometer to measure DNA content in cervical cells. This led to his first exposure of a flow cytometer – the FACS Analyzer.

Realizing the potential for cytometry in cancer diagnosis and research, he moved to Kings College Hospital in London on an MRC-funded project to look at the feasibility of using a flow-based pre-screen in cytological specimens.

In 1990, he moved to the Imperial Cancer Research Fund to work in what was then a small core facility providing support for 40 research Laboratories. Derek became Head of that unit in 1996 and remains there today. Derek currently manages a team of 7 staff and 9 cytometers (6 analysers and 3 sorters).

Derek is Chair of *flowcytometry*UK, he sits on the Council of the Royal Microscopical Society and head of the ISAC Core Managers TaskForce.

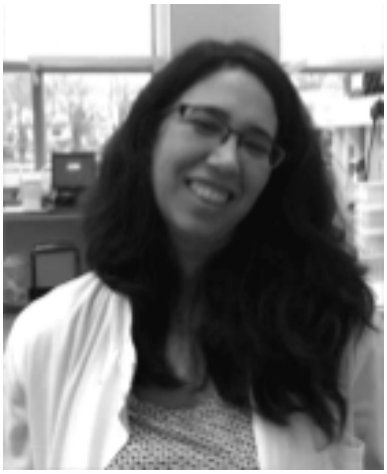
He is very active in teaching cytometry within the UK and co-organises an annual meeting on behalf of the RMS as well as speaking at several other national and international courses.

Current Research Interest:

Development of instrumentation and methodologies appropriate to the needs of a cancer research institute.

Elizabeth Ballou

Research Fellow in the Aberdeen Fungal Group at Institute of Medical Sciences, University of Aberdeen, UK



Elizabeth received her PhD in Genetics and Genomics from Duke University, USA, in the lab of Dr. Andrew Alspaugh, where she studied the role of conserved Rho-GTPases in C. neoformans thermotolerance, polarity, and ploidy. As a member of Prof Alistair Brown's lab in the AFG, Elizabeth has used flow cytometry and FACS analysis to study the impact of host carbon source on C. albicans morphogenesis and pathogenicity.

Current Research Interest:

Her work focuses on the impact of the human host environment on the fungal pathogens Candida albicans and Cryptococcus neoformans.

David Wilson

Principal Healthcare Scientist, Immunology Laboratory, Aberdeen Royal Infirmary, UK

He has over thirty years experience in clinical flow cytometry working both in Aberdeen and Glasgow. David is a founder member of the British Society for Histocompatibility and Immunogenetics and is a Fellow of the Institute of Biomedical Science and a member of their Immunology Scientific Advisory Panel. His interests in addition to flow cytometry include transplantation and autoimmune diseases.

Ian Dimmick

Manager, Flow Cytometry Core Facility, Newcastle upon Tyne University, UK

Ian began his career in a clinical setting and from 1972 to 1991 worked in various research posts using flow cytometry as a diagnostic and research tool primarily for HIV, leukaemia, lymphoma and a broad range of immunological testing.

From 1991 to 2006 Ian worked as a Flow Cytometry Applications and Instrumentation Specialist for various commercial companies.

Ian took up his current post in 2006 and manages the flow cytometry core facility in Newcastle upon Tyne University. In his current role Ian organises various flow cytometry teaching courses and conferences, such as the quarterly 'Colour Compensation' course and the annual 'Practicalities of Flow Cytometry/Cellular Analysis' meeting, both held in Newcastle upon Tyne.

Current Research Interests

Research and clinical flow cytometry in particular leukaemia, lymphoma and stem cells.

Cosimo De Bari

Professor of Translational Medicine & Hon Consultant Rheumatologist
Institute of Medical Sciences, University of Aberdeen, UK

Cosimo is a clinically active rheumatologist with expertise in regenerative medicine for musculoskeletal applications.

Cosimo graduated in Medicine (maxima cum laude) from the University of Bari (Italy), where he also underwent specialist training in Rheumatology. He then moved to Belgium, where he obtained his PhD from the University of Leuven and was recipient of the Rotary Young Investigator Award 2003 from the Belgian Society for Rheumatology. His work in Belgium contributed to the development of an autologous cellular product for articular cartilage repair, which recently became the first cell-based product to obtain EU Marketing Authorisation as an Advanced Therapy Medicinal Product.

In 2003 Cosimo moved to the UK in the Department of Rheumatology at King's College London. In May 2005 he was awarded a Clinician Scientist Fellowship from the Medical Research Council and in December 2005 he was appointed Clinical Senior Lecturer & Consultant Rheumatologist.

Since September 2007 Cosimo is Professor of Translational Medicine at the University of Aberdeen, where he currently leads the Musculoskeletal Research Programme.

Cosimo has expertise in stem cell research for musculoskeletal repair, regenerative medicine and tissue engineering. Current research interests in his Group include (i) the development of stem cell-based tissue engineering products for cartilage and bone repair; (ii) the study of the stem cell niches in the joint in health and diseases such as osteoarthritis and rheumatoid arthritis; (iii) the investigation of the developmental ontogeny of mesenchymal stem cells.

Adriano G Rossi

Professor of Respiratory and Inflammation
MRC Centre for Inflammation Research, Queen's Medical Research Institute
University of Edinburgh, UK

Adriano G. Rossi received his BSc and PhD from the University of Glasgow, Scotland UK.

He carried out postdoctoral research at Wake Forest University, North Carolina, USA and at the National Heart & Lung Institute, London, UK.

He currently holds a Chair in Respiratory and Inflammation Pharmacology at the University of Edinburgh, with a research focus on the mechanisms regulating the resolution of inflammation. He was awarded a DSc from the University of Edinburgh and is a Fellow of the Society of Biology and a Fellow of the British Pharmacological Society.

Research Theme: Immune Modulation and Regulation of Inflammation, Imaging Inflammation. We aim to gain a better understanding of the mechanisms controlling inflammatory processes with a view to help develop novel therapies for chronic inflammatory diseases. For this we aim to elucidate the mechanism regulating inflammatory cell behavior and apoptosis and manipulate the processes controlling the resolution of inflammation in order to develop new therapeutic strategies to remove unwanted and dysregulated inflammation.

John Campbell

Associate Director at Research, Development & Innovation, SNBTS, National Science Laboratory, Hon Reader at University of Edinburgh, UK

John is Associate Director of Research and Development at the Scottish National Blood Transfusion service (SNBTS) in Edinburgh. He completed his PhD in Pathology at Edinburgh in 1995 on the immunopathogenesis of lymproliferative disease, and has worked in the cellular therapy field for over 20 years.

He has held various academic positions including Lecturer in Tumour Immunology at the University of Glasgow. He has also worked extensively in the biotech industry as R&D project leader, Group Manager Clinical Science and Cell Analysis, and Director of Clinical Immunology at Miltenyi Biotec GmbH. He returned to full time academic/healthcare work at the end of 2012.

John is currently the national head of research for SNBTS and is Hon. Reader at the University of Edinburgh. SNBTS has a substantial cellular therapy research programme, with over 25 full time scientists working on basic cellular function; translation of laboratory protocols to full GMP processes; and production of cellular therapeutics for treatment of patients. SNBTS has a dedicated, fully MHRA licensed, GMP cellular therapy production centre at the Scottish Centre for Regenerative medicine. Cellular therapeutics currently in early phase trials include haematopoietic stem cells for liver repair, Corneal Limbal Stem Cells and EBV-specific Cytotoxic T Lymphocytes for PTLD.

John's own research programme focuses on the generation of novel methodologies to characterise and improve the efficacy and safety of novel cellular therapeutics in vivo, including targeting of injected cells to specific anatomical sites.

Registration is FREE, but..

Full conference registration and admission to all SSC sessions such as workshops and parallels, exhibition, lunch, opening reception and the closing ceremony are FREE.

However, we need the approx. number of attendees for catering purposes. Also, don't forget to register for the DEMO session in the afternoon as numbers for it are limited to 20! Please send your registration and if you wish to attend the demo session to **cytometry@abdn.ac.uk** **by 10th of September 2014**

SSC Poster Award

We would like to recognize the excellent research by scientists who have applied cytometry (flow and/or imaging) in their studies by offering poster awards. Cash prizes and a certificate will be awarded to the winners:

- 1st Poster prize £400
- 2nd Poster prize £200
- 3rd Poster prize £100

All scientists who are students or postdoctoral researchers (who have received their doctorate within the last five years) are invited to submit their poster.
The posters will be judged during the coffee break and the winners will be presented and recognized during the closing ceremony at 5pm at IMS level 7.

Deadline

Please submit your poster abstract by **15th of September 2014** to **cytometry@abdn.ac.uk**

Registration Form

1st SSC Meeting on 25th of September at Institute of Medical Sciences, Level 7 Conference Room, University of Aberdeen, Foresterhill, Aberdeen

Free Registration and Lunch kindly provided by generous sponsors.

Please send your registration to our local organizer at

cytometry@abdn.ac.uk

by 10th of September 2014

Local Organizers: Linda Duncan, Raif Yuecel, David Wilson & Janice Forsyth

Name _____

Position: _____

Company: _____

E-Mail: _____

Tel: _____

Address: _____

Dietary Requirements: _____

Wi-Fi Access: Yes / No

Registration Selections:

Practical Demo Session	Yes / No
SSC Member	Yes / No
Future Member	Yes / No
POSTER Submission	Yes / No

1st SSC Meeting Venue

We are grateful to the Institute of Medical Sciences at the University of Aberdeen for their support and providing us an excellent location for our first SSC conference.

The Institute of Medical Sciences

1 4 9 5

UNIVERSITY OF ABERDEEN

1st SSC Meeting Sponsors

We would like to acknowledge the following sponsors for their generous support and helping us to make this conference a big success:

Extra Donations

We are especially grateful to the following contributors for their extra donations and support to SSC 2014.

Donation of Antibodies for Demo session

BD

Donation for Catering

SONY

Contribution for the 2nd Poster Prize

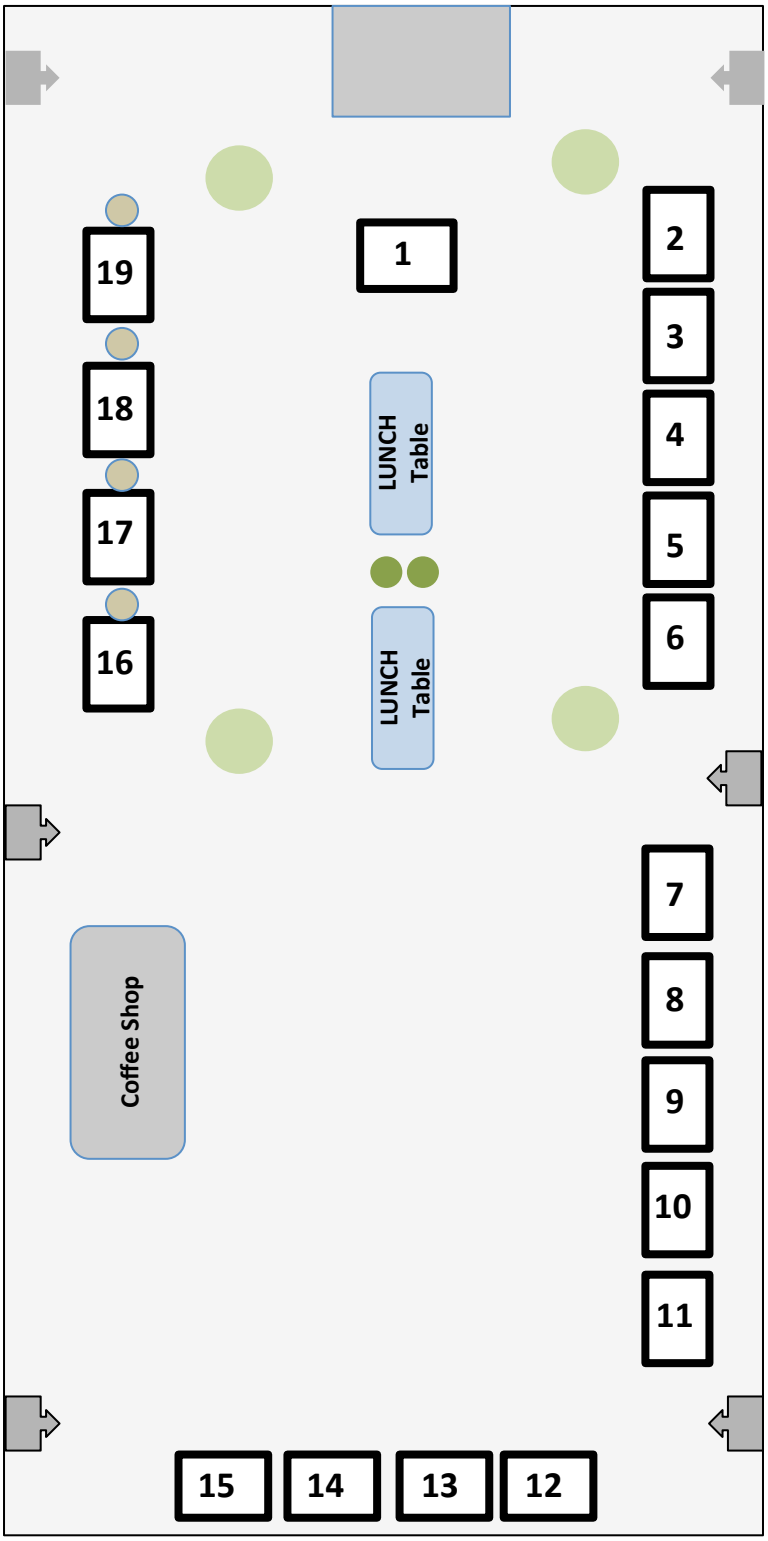
LI-COR®
Biosciences

Donation of 3rd Poster Prize

MACS
Miltenyi Biotec

EXHIBITION Plan in IMS Atrium

The IMS Atrium is open the entire day. Lunch will take place in the exhibition area.

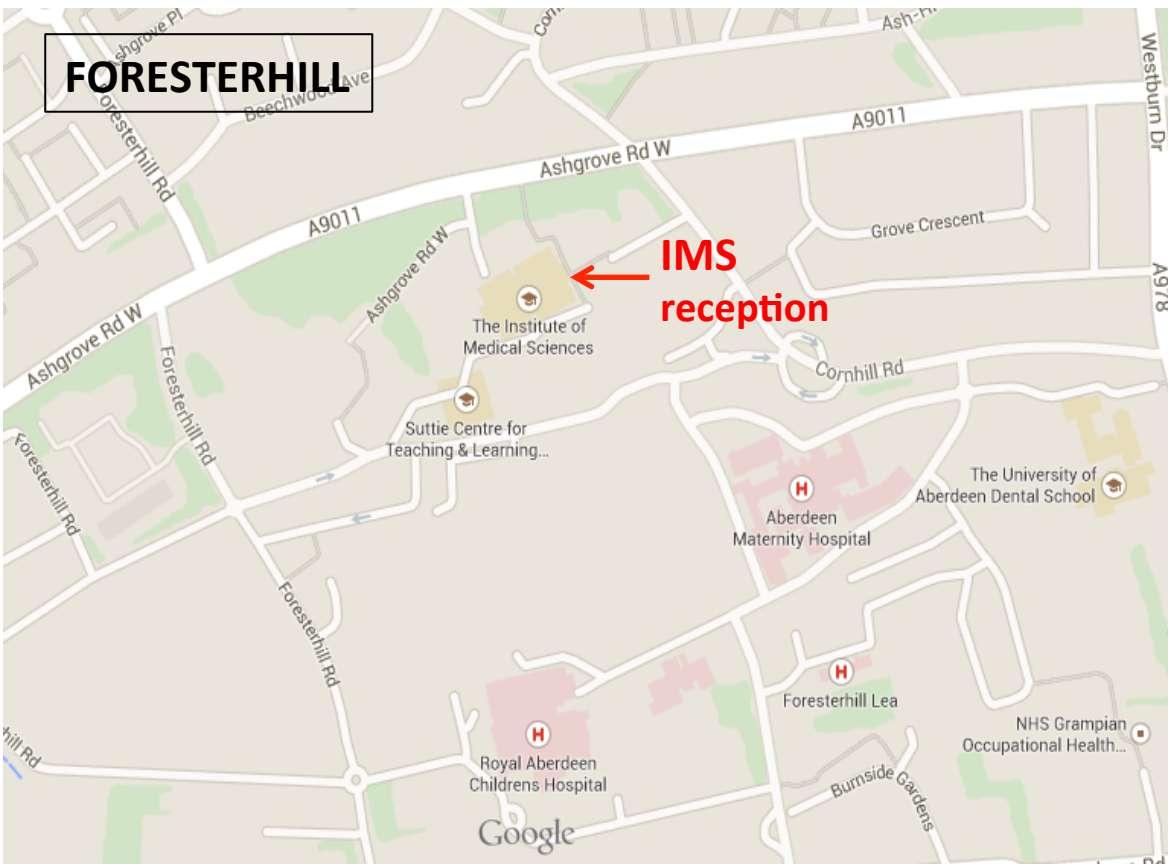


1. New England BioLabs
2. Beckman Coulter
3. Affymetrix – eBioscience
4. Sysmex-Partec
5. Stratocore
6. Sony
7. Merck Millipore
8. iLab Solutions
9. Life Technologies
10. Caltag Medsystems
11. BioRad
12. Cambridge Bioscience
13. Enzo Life Sciences
14. Biotechne
15. BioLegend
16. Becton Dickinson
17. Nexelcom
18. DeNovo Software
19. Miltenyi Biotec

Maps and Directions

Institute of Medical Sciences · University of Aberdeen · Foresterhill · Aberdeen · AB25 2ZD

The IMS is based on the Foresterhill site:
On arrival at the IMS car park from Ashgrove Road West, the IMS main reception area is located at the right hand end (West end) of the building.



Aberdeen Map and locations

Please visit also follwing website for any accomodation information:

http://www.visitaberdeen.com/your-visit/

AB DN

VisitAberdeen
www.visitaberdeen.com

/visitabdn @visitabdn

Key Attractions:

1. MUSIC HALL
2. CENTRAL LIBRARY
3. HIS MAJESTY'S THEATRE
4. COWDRAY HALL
5. ART GALLERY
6. LEMON TREE
7. ARTS CENTRE
8. PROVOST SKENE'S HOUSE
9. TOLBOOTH
10. MARITIME MUSEUM

Useful Information:

Taxi's
Rainbow **01224 878787**
Comcabs **01224 353535**
Airport Taxis **01224 775555**

Aberdeen International Airport
Dyce, Aberdeen, AB21 7DU
www.aberdeenairport.com
0844 481 6666

Aberdeen Railway Station
Guild Street, Aberdeen, AB11 6LX
www.scotrail.co.uk **0854 601 5929**
www.nationalrail.co.uk **0845 748 4950**
www.eastcoast.co.uk **0845 722 5111**

Northlink Ferries
Jamieson's Quay, Aberdeen, AB11 5NP
www.northlinkferries.co.uk
0845 600 0449

Aberdeen Bus Station
Guild Street, Aberdeen, AB11 6NA
www.firstgroup.com
01224 650000
www.stagecoachbus.com
01224 597590

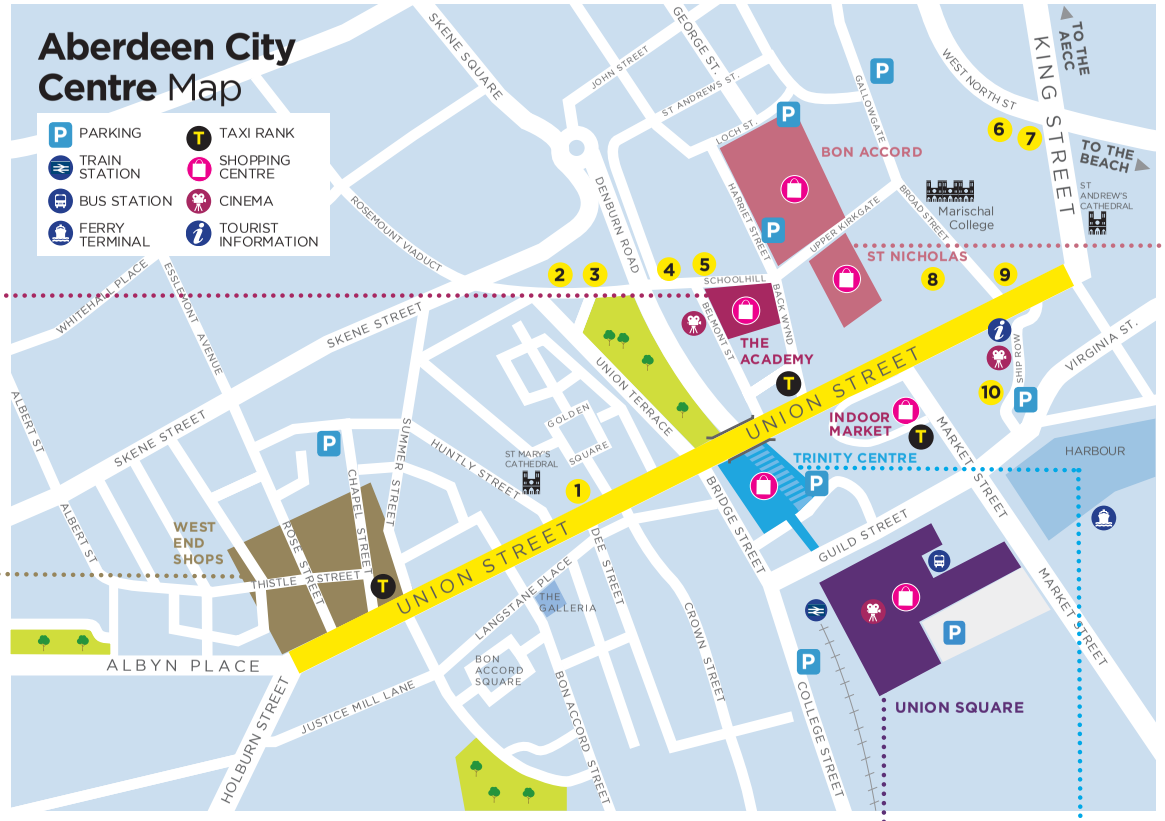
Visitor Information Centre
23 Union Street, Aberdeen, AB11 5BP
01224 269180

THE ACADEMY
SHOP EAT DRINK

Attic
Concept
i-Candy
iiMusic
Jack Wills

THE WEST END

@hamishmunro
Aberdeen Whisky Shop
Bagozza
Bellino
Black & Lizars
Colin Wood Antiques
David Florist
Elizabeth Watt
Esslemonts
Fenner & Coburn
Flower Vogue
Frox
Gallery Heinzel
Hugh Harrison
Innocence
John Park
Kafka
Kensington Hair & Beauty
Michies
Nova
Platinum Hair
Pure
Rosie Thistle's Tea Room
Ross of Chapel Street
Saks Hair & Beauty
Signature
Straine Opticians
The Hair House
The Men's Emporium
Thistle Sports



MyAberdeen

Scan Me to download the official app for Aberdeen

BON ACCORD & ST NICHOLAS

3 Mobile
Boots
Build a Bear Workshop
Burton
Calendar Club
Carphone Warehouse
Chisholm Hunter
Claire's
Clinton Cards
Coast
Currys PC World
Disney Store
Dorothy Perkins
Early Learning Centre
EE
Ernest Jones
GAME
H Samuel
H&M
Hawkins Bazaar
Highland Chocolatier
Hobbs
Internacionale
Jo Malone
John Lewis
Kaaya Lash 'n' Brow
Karen Millen
Kurt Geiger
L'Occitane
La Senza
Laura Ashley
M&S
Magnolia
Menkind
Miss Selfridge
Monsoon Accessorize
Monsoon Children
New Look
Next
O2
Oasis
Ortak
Pepperberry
Phase Eight
Phones 4 U
Post Office
Radley
River Island
Sky
Superdrug
Swarovski
The Body Shop
The Card Factory
The Perfume Shop
Thorntons
Topman
Topshop
Vision Express
Vodaphone
Wallis
Warehouse
Warren James
Watch Workshop
WH Smith

UnionSquare

AB10
Accessorize
Apple
Best Wishes
Boots
Carphone Warehouse
Cath Kidston
Clarks
Cotswold Outdoor
Deichmann
Dune
Fat Face
Fossil
H&M
Hobbycraft
Hollister
Hotel Chocolat
House of Fraser.com
Hugo Boss
Jack Jones
JD Sports
Jones Bootmaker
Joules
Lapis Gold
M&S
MAC
Magnolia Silver
Mamas & Papas
Mobile Snap
New Look
Next
O2
Optiko
Original Penguin
Outfit
Pandora
Paperchase
Pure Spa
River Island
Rox
SAKS Hair
Shine Brow 'n' Beauty
SoleTrader
Sony Centre
Superdry
Swatch
The Perfume Shop
The White Company
TK Maxx
TM Lewin
USC
V Design
Vero Moda
White Company
Zara

TrinityCentre

Alphabetise
Argos
Card Factory
Claire's
Clinton Cards
Debenhams
Duncan & Todd
EE
Ernest Jones
The Fragrance House
HMV
H Samuel
Holland and Barrett
JD Sports
Kaaya Lash 'n' Brow
Pure Fashion
Officers Club
Waterstones
Sassy
Schuh
Sky
Superdrug
Timpson
Trespass
Primark
Quiz

Hotels A to Z

1. Ardoe House
2. Atholl
3. Bauhaus
4. The Brentwood
5. Carmelite
6. The Chester
7. Copthorne
8. Courtyard by Marriott
9. The Craighaar
10. Double Tree by Hilton
11. Douglas
12. Hilton Treetops
13. Hilton Garden Inn
14. Holiday Inn AECC
15. Holiday Inn Express AECC
16. Holiday Inn Express City Centre
17. Holiday Inn West
18. Ibis City Centre
19. Jurys Inn
20. Loch Kinord
21. Malmaison
22. The Marcliffe
23. The Mariner
24. Marriott
25. Maryculter House
26. Meldrum House
27. Menzies
28. Micasa
29. The Northern
30. Norwood Hall
31. Park Inn
32. Premier Inn Airport
33. Premier Inn Anderson Drive
34. Premier Inn Bridge of Don
35. Premier Inn City Centre
36. Raemoir House
37. Skene House Holburn
38. Skene House Rosemount
39. Skene House Whitehall
40. Speedbird Inn
41. Strathburn
42. Thainstone House
43. Thistle Airport
44. Thistle Altens
45. Thistle City Centre
46. Wellington

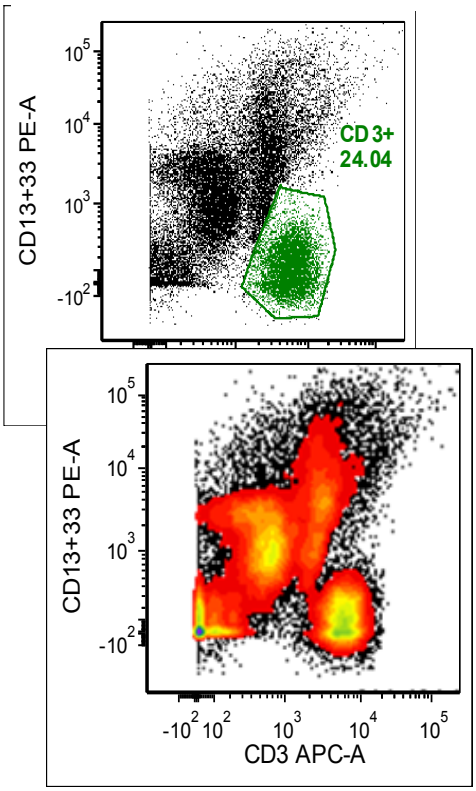
City map supplied by ABERDEEN INVESTLIVEVISIT

Friday 26 September 2014

Flow Cytometry Data Analysis Workshop

Come and learn how to save time turning your flow data into results with **FCS Express** software.

- **Easy to use - familiar Microsoft Powerpoint like interface**
- **Publication quality graphics**
- **Create PowerPoints and PDFs**
- **Batch Processing**
- **Heatmaps, bar charts & scatter plots**
- **Powerful and flexible statistics**
- **Cell Cycle and Proliferation**
- **Import Accuri CFlow files automatically**
- **Import FACS DIVA experiments**
- **Also New FCS Express 4 Image Cytometry**
- **Much, much, more.....**



Iain Fraser Cytometry Centre
The Institute of Medical Sciences
Level 7 Conference Room
RSVP to cytometry@abdn.ac.uk

9:00am – 12:00pm

Please bring any Questions!
Hope to see you there

Presented by: Andrea Valle
Email : andrea.valle@denovosoftware.com

UNIVERSITY OF ABERDEEN