

SUNDAY, February 18		
8:30	REGISTRATION Hall 2nd floor	
9:00	Short Course 1 Room Alvorada 1 Paper-Based Analytical Devices Charles Henry (Colorado State University)	
9:00	Short Course 2 Room Itamaraty Strategies to Increase Resolution in Capillary Electrophoresis Tarso Kist (Federal University of Rio Grande do Sul)	
11:00	COFFEE BREAK	
11:30	Short Course 3 Room Alvorada 1 Practical LC-MS Method Development for Small Molecules Regina Oliveira (Federal University of Sao Carlos)	
11:30	Short Course 4 Room Itamaraty Clinical Metabolomics and Biomarker Discovery using Capillary Electrophoresis-Mass Spectrometry Philip Britz-McKibbin (McMaster University)	
17:00	OPENING CEREMONY Room Segovia 3 Marina Tavares Emanuel Carrilho	
17:15	FOUNDER LECTURE <i>Chair:</i> Marina Tavares (University of Sao Paulo)	
17:20	FL An Immunoaffinity Capillary Electrophoresis-Based Biomarker Analyzer as a Pivotal Role in Systems Medicine-P4 Medicine Norberto Guzman (Princeton Biochemicals Inc.)	
18:00	PLENARY SESSION <i>Chair:</i> Emanuel Carrilho (University of Sao Paulo)	
18:05	PL1 Comprehensive Analysis of HIV Glycosylation by Capillary Electrophoresis Separation and Ultraviolet Photodissociation John Yates (The Scripps Research Institute)	
19:00 - 22:00	WELCOME RECEPTION Room Alhambra 1	

MONDAY, February 19		
8:00	REGISTRATION Hall 2nd floor	
8:00	SCIEX INNOVATION MEDAL CEREMONY Room Segovia 3 <i>Chair:</i> Jeff Chapman (Sciex)	
8:05	PL2 Electrophoretic Cytometry: Profiling Protein Expression, Modifications, and Sub-Cellular Location in Single Cells Amy Herr (University of California)	
8:45	PRESENTATION OF MEDAL	



34th International Symposium on
Microscale Separations and Bioanalysis

Program MSB 2018

www.msb2018.org

MONDAY, February 19		
	FUNDAMENTALS, SIMULATIONS & METHOD DEVELOPMENT SESSION Room Segovia 1	ADVANCED DETECTION TECHNIQUES SESSION Room Segovia 2
8:55	Session Introduction <i>Chair:</i> Jörg Kutter (University of Copenhagen)	8:55 Session Introduction <i>Chair:</i> José Alberto Fracassi (University of Campinas)
9:00	KN1 Enhanced Biomolecular Analysis with on-chip Isotachophoresis Moran Bercovici (Technion – Israel Institute of Technology)	9:00 KN2 New Detection Methods for Microchip Electrophoresis-Based Analysis of Biomarkers of Oxidative Stress and Brain Injury Susan Lunte (University of Kansas)
9:30	OP1 Simulation and Practical Evaluation of the Peak Efficiency in Pressure Assisted Capillary Zone Electrophoresis in the Presence of Counter EOF Andras Guttman (Sciex)	9:30 OP4 CBQCA Labelling of Trp, Leu, Ile and Ser, Difficulties and Solutions in Studies using CE/LEDIF François Couderc (University of Toulouse)
9:50	OP2 Study of Thermodynamic Parameters as a means to Assessing Terpene-Micelle Interactions using Micellar Electrokinetic Chromatography (MEKC) YS Carolina Picossi (University of Sao Paulo)	9:50 OP5 Using a CGE-LIF Based Multiplex Gene Expression Assay to Predict Immune Tolerance In Human Liver Transplant Recipients Jeff Chapman (Sciex)
10:10	OP3 Enhancement of the Conductivity Detection Signal in Capillary Electrophoresis Systems using Neutral Cyclodextrins as Sweeping Agents YS Milan Boublik (Charles University)	10:10 OP6 Resolving Volume-Restricted Metabolomics using Sheathless Capillary Electrophoresis-Mass Spectrometry Rawi Ramautar (Leiden University)
10:35	POSTER PITCHES 1 Room Segovia 3	
10:55	COFFEE BREAK, VENDOR EXHIBITION & POSTER PRESENTATION 1 (PP01-PP20) Room Alhambra 1	
	ADVANCED SURFACE CHEMISTRIES & MATERIALS FOR COLUMN AND MICRO DEVICES SESSION Room Segovia 1	SAMPLE PREPARATION TECHNIQUES SESSION Room Segovia 2
11:55	Session Introduction <i>Chair:</i> Gerard Rozing (ROZING.COM Consulting)	11:55 Session Introduction <i>Chair:</i> Julie Schappler (University of Geneva)
12:00	KN3 Microfluidic Devices for Clinical Analysis: Novel Surface Chemistries for Sampling and Analysis Vincent Remcho (Oregon State University)	12:00 KN4 New Trends in Liquid Phase Microextractions of Biological Samples Pavel Kuban (Czech Academy of Sciences)
12:30	OP7 Running Open Tubular Liquid Chromatography with Exceptionally High Efficiencies Shaorong Liu (University of Oklahoma)	12:30 OP10 Integration of Electroextraction in Capillary Electrophoresis – Mass Spectrometry for Analysis of Low Abundant Metabolites Peter Lindenburg (University of Applied Sciences Leiden)
12:50	OP8 Use of Clickable Copolymers to Modulate Capillary Surface Properties and Enhance CE Separations YS Laura Sola (National Research Council of Italy)	12:50 OP11 Electromembrane Extraction, Towards a New SLM for Highly Polar Metabolites’ Extraction YS Nicolas Drouin (University of Geneva)
13:10	OP9 Experimental Realization of a Toroidal Capillary Electrophoresis System Tarso Kist (Federal University of Rio Grande do Sul)	13:10 OP12 Microextraction using RDSE and BAμE Techniques as Strategies for the Determination of Pesticides and Emerging Contaminants in Water Samples Renato Zanella (Federal University of Santa Maria)
13:30	SCIENCE CAFÉ LUNCH: presented by Sciex Room Segovia 3	
14:30	BEACH BREAK	
	METABOLOMICS & BIOMARKER DISCOVERY SESSION 1 Room Segovia 1	BIOLOGICS & BIOPHARMA SESSION Room Segovia 2
16:55	Session Introduction <i>Chair:</i> Philip Britz-McKibbin (McMaster University)	16:55 Session Introduction <i>Chair:</i> Regina Oliveira (Federal University of Sao Carlos)
17:00	KN5 Strategies for Personalized Medicine and Population Screening Jia Li (Imperial College London)	17:00 KN6 LC-MS/MS for the Bioanalysis of Therapeutic Proteins Rainer Bischoff (University of Groningen)

17:30	OP13 Multiplatform Untargeted Metabolomics to Study the Mechanism of Action of Methyldehydrodieugenol B in <i>Leishmania Infantum</i> Parasites Gisele Canuto (Federal University of Bahia)	17:30 OP16 A Single Analytical Platform for Glycan Analysis, Charge Heterogeneity, and Purity Determination of Therapeutic Monoclonal Antibodies Esme Candish (Sciex)
17:50	OP14 Metabolomics Approach to the Study of Gestational Exposure to Air Pollution YS Andréa Faccio (University of Sao Paulo)	17:50 OP17 Coupling Imaged Capillary Isoelectric Focusing (ICIEF) with Mass Spectrometry (MS) Gerard Rozing (ROZING.COM Consulting)
18:10	OP15 Annotation and Identification in CE-MS based Metabolomics: Towards a Mobility Based Library Julie Schappler (University of Geneva)	18:10 OP18 Small Peptide Functionalized Affinity Monoliths for Monoclonal Antibody Purification Jacques Crommen (University of Liege)
18:30	COFFEE BREAK & VENDOR EXPOSITION Room Alhambra 1	
	MICROFLUIDICS, POC DEVICES & LAB-ON-A-CHIP SESSION 1 Room Segovia 1	GLYCOMICS & GLYCAN ANALYSIS SESSION Room Segovia 2
18:55	Session Introduction <i>Chair:</i> Thiago Paixão (University of Sao Paulo)	18:55 Session Introduction <i>Chair:</i> Andras Guttman (Sciex)
19:00	KN7 Paper Meets Plastic: Combining Paper-Analytic Devices with 3D Printing for Disease Detection Charles Henry (Colorado State University)	19:00 KN8 High-Throughput Glycomics - What did we Learn From First 50,000 Analyses Gordan Lauc (University of Zagreb)
19:30	OP19 Point of Care Detection of Direct Bilirubin using Wicking Microfluidics Gayan Bandara (Oregon State University)	19:30 OP22 Detection of ApolipoproteinC-III Glycoforms and Related Species for the Screening of Congenital Disorders of Glycosylation by Capillary Zone Electrophoresis YS Coralie Ruel (Institute Galien Paris Sud)
19:50	OP20 Non-Invasive Sampling and Analysis of Biological Fluids in Clinical Diagnosis and Monitoring Petr Kubán (Masaryk University)	19:50 OP23 Epigenetic Regulation of Protein Glycosylation using CRISPR-dCas9 Based Tools Vlatka Zoldos (University of Zagreb)
20:10	OP21 Molecular Diagnosis of Dengue by Reverse Transcription Loop-Mediated Isothermal Amplification (RT-LAMP) in a Paper-Based Device Gabriela Duarte (Federal University of Goias)	20:10 OP24 Sheathless CE-HRMS for the Characterization of Intact Endogenous Glycoproteins YS Elena Dominguez-Vega (Leiden University Medical Center)
20:30	SYMPOSIUM DINNER 1 Restaurant Windsor Barra (at hotel lobby)	

TUESDAY, February 20		
8:00	REGISTRATION Hall 2nd floor	
8:00	PLENARY SESSION <i>Chair:</i> Emanuel Carrilho (University of Sao Paulo) Room Segovia 3	
8:05	PL3 Digital Microfluidics for Chemistry, Biology, and Medicine Aaron Wheeler (University of Toronto)	
	METABOLOMICS & BIOMARKER DISCOVERY SESSION 2 Room Segovia 1	BIOINTERACTIONS & AFFINITY SEPARATIONS SESSION Room Segovia 2
8:55	Session Introduction <i>Chair:</i> Philip Britz-McKibbin (McMaster University)	8:55 Session Introduction <i>Chair:</i> Norberto Guzman (Princeton Biochemicals Inc.)
9:00	KN9 Metabolomics Assessment of Interactions between Statins and Antiplatelets in the Evolution of Ischemic Heart Disease after Acute Myocardial Infarction Fco. Javier Rupérez (University San Pablo CEU)	9:00 KN10 Two Micro Platforms for Analysis of Charge-Variants Produced by Post-Translational Modifications Kiyohito Shimura (Fukushima Medical University)
9:30	OP25 Multiplatform Plasma Fingerprinting in Cancer Cachexia: A Pilot Study YS Mónica Cala (University of los Andes)	9:30 OP28 Estimation of Effective Charge of Polycationic Insect Antimicrobial Peptides by Capillary Isotachophoresis and Capillary Zone Electrophoresis Václav Kašička (The Czech Academy of Sciences)
9:50	OP26 The Fast Track to Electrophoretic Mobility: Enhancing the Robustness of your Metabolomic Data with ROMANCE YS Víctor González-Ruiz (University of Geneva)	9:50 OP29 Stability and Preconcentration of Nanoparticles in Capillary Electrophoresis YS Szymon Dziomba (Medical University of Gdansk)

SOCIAL EVENTS

Too much Rio... Too little time...

MSB recognizes that good science is all about strong interaction between people. Therefore, next to a comprehensive scientific program with active discussion, MSB 2018 will provide ample opportunities to build up and strengthen social networks. All social events are included in the registration and open to all delegates. So join us and take the occasion to meet up with old friends and make new scientific partners.

Welcome Reception

Sunday, Feb 18, 19:00 – 22:00 h | Room Alhambra 1

Refreshments and full buffet will be served just after the Opening Plenary Session.

Symposium Dinner 1

Monday, Feb 19, 20:30 – 22:00 h | Restaurant Windsor Barra at hotel lobby
Enjoy the Chef’s buffet with your fellow participants.

Symposium Excursion

Tuesday, Feb 20, 17:00 h | Meet at the hotel lobby for transportation
Visit one of the most famous landmarks of the city, the Sugar Loaf, climbing the mountain by cable cars, with a quick drive by the iconic beaches sidewalks (Ipanema, Copacabana, Leblon).

Symposium Dinner 2

Tuesday, Feb 20, 20:00 h
After the visit to Pão de Açúcar/ Sugar Loaf we will stop at Fogo de Chão, a fine dinning, full service Brazilian steakhouse.

Farewell Reception

Wednesday, Feb 21, 17:00 - 20:00 h
Meet us at the Terraço Oriente at the hotel second floor, for a cheese and wine/beer farewell reception with an amazing view of the entire Barra da Tijuca beach.

PLENARY LECTURES

Norberto A. Guzman

Sunday Feb 18 at 5:20 pm | Room Segovia 3
An Immunoaffinity Capillary Electrophoresis-Based Biomarker Analyzer as a Pivotal Role in Systems Medicine-P4 Medicine

John R. Yates

Sunday Feb 18 at 6:05 pm | Room Segovia 3
Comprehensive Analysis of HIV Glycosylation by Capillary Electrophoresis Separation and Ultraviolet Photodissociation

Amy E. Herr

Monday Feb 19 at 8:05 am | Room Segovia 3
Electrophoretic Cytometry: Profiling Protein Expression, Modifications, and Sub-Cellular Location in Single Cells

Aaron R. Wheeler

Tuesday Feb 20 at 8:05 am | Room Segovia 3
Digital Microfluidics for Chemistry, Biology, and Medicine

Marcos N. Eberlin

Wednesday Feb 21 at 8:05 am | Room Segovia 3
Mass Spectrometry as an Efficient Ultrafast Separation Technique

TUESDAY, February 20		
10:10	OP27 Prognostic Biomarkers of Non Hodgkins Lymphoma: Untargeted Metabolomics for the Classification of Urine Samples at Different Chemotherapy Cycles Ana Valéria Simionato (University of Campinas)	10:10 OP30 Microbial Analysis of Controlled Aggregates using Capillary Electrophoresis and Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry Approach Bogusław Buszewski (Nicolaus Copernicus University in Torun)
10:35	POSTER PITCHES 2 Room Segovia 3	
10:55	COFFEE BREAK, VENDOR EXHIBITION & POSTER PRESENTATION 2 (PP21-PP40) Room Alhambra 1	
	MICROFLUIDICS, POC DEVICES & LAB-ON-A-CHIP SESSION 2 Room Segovia 1	PROTEOMICS & INTACT PROTEIN ANALYSIS SESSION Room Segovia 2
11:55	Session Introduction <i>Chair:</i> Wendell Coltro (Federal University of Goias)	11:55 Session Introduction <i>Chair:</i> Govert Somsen (VU University)
12:00	KN17 Transverse Dispersion in Paper-Based Devices: From Fundamentals to Analytical Operations Claudio Berli (Intec Conicet)	12:00 KN12 Capillary Zone Electrophoresis Coupled to Mass Spectrometry in Deep Characterization of Proteins, Protein Complexes and Proteomes Alexander R. Ivanov (Northeastern University)
12:30	OP31 Stationary Phase Supports from Thiolene-Based Emulsions for Microchip (Electro)Chromatography Jörg Kutter (University of Copenhagen)	12:30 OP34 Capillary Zone Electrophoresis – Native Mass Spectrometry: A New Tool for Quality Control of Intact Therapeutic Monoclonal Antibodies YS Minh Thang Le (Institute Galien Paris Sud)
12:50	OP32 How Far Can We Go on the Production of Microfluidic Devices using FDM-Based 3D Printing? José Alberto Fracassi (University of Campinas)	12:50 OP35 Probing Protein Unfolding by Capillary Zone Electrophoresis YS Rob Haselberg (VU University)
13:10	OP33 Coupling Low-Cost Microfluidic Devices with MS for Kinetic Studies of Carnosine with Ferrylmyoglobin Jonatan Catai (University of Sao Paulo)	13:10 OP36 A Novel Nanoflow LC-MS Limited Sample Proteomics Approach using Micro Pillar Array Columns (μPAC™) Paul Jacobs (PharmaFluidics)
13:30	SCIENCE CAFÉ LUNCH: presented by Bruker Corp. Room Segovia 3	
14:30	BEACH BREAK	
17:00	EXCURSION TO “PÃO DE AÇÚCAR/SUGAR LOAF” AND SYMPOSIUM DINNER 2	

YOUNG SCIENTIST AWARD

The MSB 2018 Young Scientists Award is intended to give talented young scientists extra encouragement. It will be presented to a young researcher whose outstanding work sets an example for other scientists. All presenters of an oral contribution who are less than 35 years of age at the time of their lecture are eligible for consideration. An international jury of both young and matured scientists will judge the qualified presentations and choose a winner. The prize consists of a certificate and a cash amount (sponsored by Analítica). The winner will be announced and awarded at the Closing Ceremony on Wednesday.

BEACH BREAK

Beach breaks are scheduled at 14:30 – 16:55 h on Monday and Tuesday. Enjoy the magnificent Barra da Tijuca shore just across the hotel but come back to the evening sessions at 16:55 h sharp.

WEDNESDAY, February 21		
8:00	REGISTRATION Hall 2nd floor	
8:00	PLENARY SESSION <i>Chair:</i> Marina Tavares (University of Sao Paulo) Room Segovia 3	
8:05	PL4 Mass Spectrometry as an Efficient Ultrafast Separation Technique Marcos Eberlin (University of Campinas)	
	FORENSICS, DOPING & TOXICOLOGICAL ANALYSIS SESSION Room Segovia 1	HYPHENATED TECHNIQUES & INTER-FACE DESIGNS SESSION Room Segovia 2
8:55	Session Introduction <i>Chair:</i> José Luiz da Costa (University of Campinas)	8:55 Session Introduction <i>Chair:</i> Rawi Ramautar (Leiden University)
9:00	KN13 Synergy Between Omics Approaches in Toxicology, Doping Control and Forensic Science Francisco Radler de Aquino Neto (Federal University of Rio de Janeiro)	9:00 KN14 CE-MS: Searching for a “Killer Application” Oleg Mayboroda (Leiden University Medical Center)
9:30	OP37 High Throughput and Nontargeted Screening by Multisegment Injection-Capillary Electrophoresis-Mass Spectrometry: A Method for Systematic Surveillance of Drugs of Abuse Philip Britz-McKibbin (McMaster University)	9:30 OP40 Development of Platforms to Bottom-Up and Top-Down Proteomics by Chemometrics Tools YS Weliton Batiston (University of Sao Paulo)
9:50	OP38 Development of a Method to Quantify Synthetic Cathinones in Dried Blood Spots (DBS) by LC-MS/MS – Application to Long-Term Stability Study YS Kelly Cunha (University of Campinas)	9:50 OP41 Solving a Clinical Challenge: The Absolute Quantification of B-Type Natriuretic Peptide Proteolysis, a Key Heart Failure Diagnostic and Therapeutic, in Human Plasma by CE-MS Jennifer Van Eyk (Cedars Sinai Medical Center)
10:10	OP39 Microextraction by Packed Sorbent for Post Mortem Whole Blood Sample Preparation in Forensic Analyses of Benzodiazepines YS Loraine Togni (Albert Einstein Hospital)	10:10 OP42 Low Flow CE-MS and Measurement of Stability Constants of Complexes by Affinity CE Dušan Koval (Czech Academy of Sciences)
10:35	POSTER PITCHES 3 Room Segovia 3	
10:55	COFFEE BREAK, VENDOR EXHIBITION & POSTER PRESENTATION 3 (PP41-PP60) Room Alhambra 1	
	LIPIDOMICS SESSION Room Segovia 1	FOOD ANALYSIS SESSION Room Segovia 2
11:55	Session Introduction <i>Chair:</i> Alessandra Sussulini (University of Campinas)	11:55 Session Introduction <i>Chair:</i> Daniel Cardoso (University of Sao Paulo)
12:00	KN15 Lipidomics in Clinical Research: Methods and Applications Matej Orešič (Turku Center for Biotechnology)	12:00 KN16 Comprehensive 2D Chromatography Coupled to QqQ-MS for the Analysis of Food Luigi Mondello (University of Messina)
12:30	OP43 Chasing Bipolar Disorder Biomarkers: A Biological Validation Assay YS Henrique Ribeiro (University of Campinas)	12:30 OP46 Addressing the Challenges when Implementing DI-SPME to GC-Based Food Metabolomics Studies Érica Souza-Silva (Federal University of Sao Paulo)
12:50	OP44 Promises and Challenges of Lipidomics in Data-Independent Acquisition Mode Michael Lämmerhofer (University of Tübingen)	12:50 OP47 Miniaturized QuEChERS Method for Determination of 97 Pesticides in Wine using Ultra-High Performance Liquid Chromatography Tandem Mass Spectrometry Osmar Prestes (Federal University of Santa Maria)
13:10	OP45 Global Lipid Profile as Molecular Markers for Cardiovascular Asymptomatic Patients with Framingham Intermediate Score: A Translational Pilot Study Aline Martins (University of Brasilia)	13:10 OP48 Method Optimization for trans Fatty Acid Determination by CZE-UV Under Direct Detection with a Simple Sample Preparation Marcone de Oliveira (Federal University of Juiz de Fora)
13:30	SCIENCE CAFÉ LUNCH: presented by Analítica Room Segovia 3	

BEST POSTER AWARDS

All posters presented at MSB 2018 will be considered for a Best Poster Award. The posters will be reviewed by an international panel of scientists. Poster awards comprise cash prizes (sponsored by Pharmafluidics, Agilent, Bruker, and Waters) for the 4 best posters. Runners-up 5-10 will receive book vouchers (made available by Springer-Verlag) or a one-year free subscription to Analyst, Analytical Methods or Lab-on-a-chip (made available by the Royal Society of Chemistry). Poster prize winners will be presented and awarded at the Closing Ceremony on Wednesday.

POSTER SESSIONS & PITCHES

Take your time to see the posters and visit the exhibitors in Room Alhambra 1. Dedicated poster sessions are on Monday, Tuesday, and Wednesday at 10:55-11:55 h, when the presenters will be at their poster. A select number of poster presenters is nominated for a short pitch (3 min / 3 slides) prior to the poster sessions in Room Segovia 3.

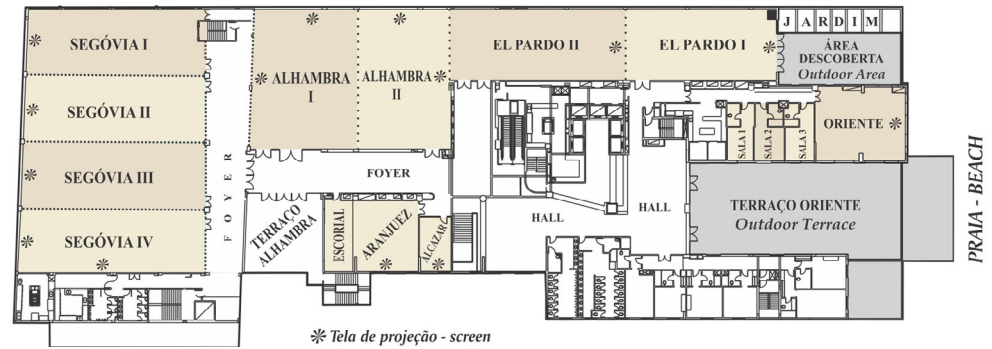
	PHARMACEUTICALS & CHIRAL ANALYSIS SESSION Room Segovia 1		MULTIDIMENSIONAL SEPARATIONS SESSION Room Segovia 2
14:55	Session Introduction <i>Chair:</i> Michael Lämmerhofer (University of Tübingen)	14:55	Session Introduction <i>Chair:</i> Quezia Cass (Federal University of Sao Carlos)
15:00	KN17 Recent Development in Separation of Enantiomers by using Capillary Electromigration Techniques Bezhan Chankvetadze (Tbilisi State University)	15:00	KN18 Improving Separation Compatibility and Performance in Two-Dimensional Liquid Chromatography using Active Solvent Modulation (ASM) Dwight Stoll (Gustavus Adolphus College)
15:30	OP49 Development and Validation of Generic Capillary Electrophoresis Methods for the Analysis of Antineoplastic Drugs Formulations YS Nicolas Guichard (University of Geneva)	15:30	OP51 Using Weights to Improve Alignment Wim de Boer (VU University)
15:50	OP50 In Vitro Enantioselective Inhibition of Human Cytochrome P450 Enzymes by Pesticides Anderson de Oliveira (University of Sao Paulo)	15:50	OP52 Comprehensive Two-dimensional Liquid Chromatography for the Analysis of Natural Products Paola Dugo (University of Messina)
16:10	CLOSING REMARKS, ANNOUNCEMENTS & AWARDS Room Segovia 3		
17:00	PHOTOGRAPH SESSION & FAREWELL COCKTAIL Terraço Oriente		

SCIENCE CAFÉ



Attend the Science Café seminars in Room Segovia 3 on Monday (Sciex), Tuesday (Bruker), and Wednesday (Analítica) at 13:30 h, and find out about the latest advances in commercial separation technology. Lunch will be served.

2nd FLOOR PLAN



Short Courses (Rooms Alvorada 1 & Itamaraty) 1st Floor

MSB 2018 - RIO DE JANEIRO



PROGRAM & INFORMATION

GREAT SCIENCE & CARNIVAL at MSB 2018 in Rio de Janeiro



Join us for the Champion's Parade of
Rio Samba Schools on Feb 17!