

**IMSS 2013**

**1st International Mass Spectrometry School**

Siena (Italy), September 15-20, 2013

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## Invitation

The International Mass Spectrometry Foundation and the Division of Mass Spectrometry of the Italian Chemical Society are glad to announce the **1st International Mass Spectrometry School (IMSS)** that will be held in Siena (Italy) from 15 to 20 September 2013.

This School inaugurates a new important activity of IMSF in the field of higher education in mass spectrometry, nowadays one of the major needs requested by the wide diffusion of mass spectrometry in different fields.

**IMSS 2013** is a six day full immersion school aimed to give advanced education in mass spectrometry to graduate, PhD, post-doc students, and young working in the areas of chemistry, biosciences, food, environment, and medicine.

The school should also be useful for allowing meeting of young scientists coming from different countries and for creating new links among young generation of mass spectrometrists.

## Important Dates

Registration Start: **January, 2013**

Fellowship Request Deadline: **April 30, 2013**

Notification of Fellowship: **May 31, 2013**

Registration End: **June 15, 2013**

Notification of Acceptance: **June 30, 2013**

Receiving Payment Deadline: **July 31, 2013**

Cancellation and Refund Deadline: **August 15, 2013**

from <http://www.imss2013.it/index.html>

# Committees

## International Mass Spectrometry Foundation (IMSF)

### Executive Committee

President	Marcos N. Eberlin (Brazil)
Past President	John C. Traeger (Australia)
Vice President (Society)	Catherine E. Costello (USA)
Vice President (Conference)	Yoshinao Wada (Japan)
Treasurer	Ron Heeren (Netherlands)
Secretary	G. John Langley (UK)
Region A Representative	Einar Uggerud (Norway)
Region B Representative	Jentaie Shiea (Taiwan)
Region C Representative	Scott A. McLuckey (USA)

### Chairman

- Gianluca Giorgi, University of Siena, Vice-President DSM

### Local Organizing Committee

- Silvia Catinella, Chiesi Farmaceutici, Parma, President DSM
- Leopoldo Ceraulo, University of Palermo
- Francesco De Angelis, University of L'Aquila
- Salvatore Foti, University of Catania
- Giorgio Mellerio, University of Pavia
- Gloriano Moneti, University of Florence
- Lorenza Operti, University of Turin
- Andrea Raffaelli, CNR, Pisa
- Giovanni Sindona, University of Calabria
- Pietro Traldi, CNR, Padova

from <http://www.imss2013.it/committees.html>

## School outline

In the last decade, mass spectrometry has had an impressive development and diffusion in many branches of science.

The number of installed instruments grew a lot and, as a consequence, many people manage mass spectrometry: they design experiments, carry out them and interpret the data.

Among them, the number of young people approaching mass spectrometry is growing year by year.

Unfortunately, the widespread use of mass spectrometry is not accompanied by a corresponding spreading and reinforcing of its culture. Teaching of MS in the Universities is generally quite poor.

Owing to this lack of institutional formation, many national MS societies organize MS courses inside their countries, most of them are of introductory/basic level.

Given this background, IMSF decided to extend and reinforce its action to education through the organization of the **International Mass Spectrometry School**, originally proposed by the Division of Mass Spectrometry of the Italian Chemical Society.

The **1st International Mass Spectrometry School (IMSS 2013)** will be held in Siena (Italy) from 15 to 20 September 2013.

IMSS 2013 is a six day full immersion school aimed to give advanced education in mass spectrometry to graduate, PhD, post-doc students, and young working in the areas of chemistry, biosciences, food, environment, and medicine.

The school should also be useful for allowing meeting of young scientists coming from different countries and for creating new links among young generation of mass spectrometrists.

from <http://www.imss2013.it/school.html>

## School venue

The **IMSS 2013** will be held at [Collegio Santa Chiara](http://www3.unisi.it/santachiara/homeEn.html), a Graduate College within the University of Siena, located in the heart of Siena downtown, opened in 2004.

All the school activities will be held inside this college, so to ensure an useful and fruitful interaction among lecturers and students.

Being the college in downtown, it offers the participants the opportunity to visit the town in their free time.

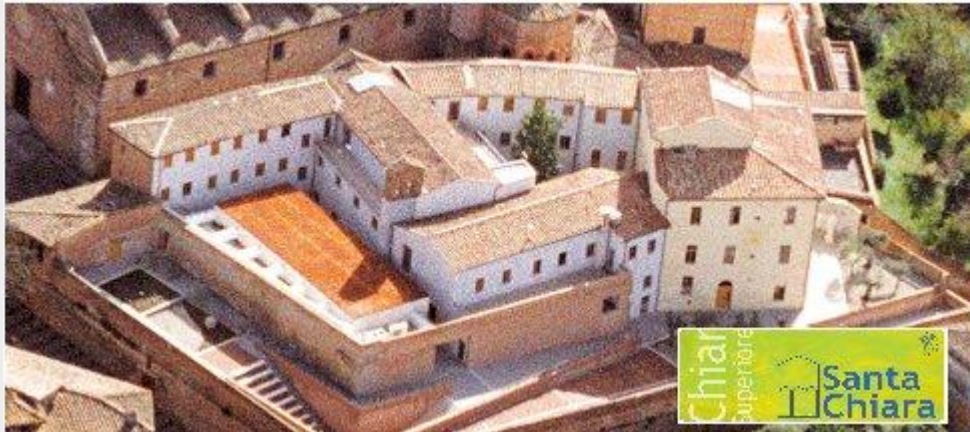
### **SANTA CHIARA GRADUATE SCHOOL**

University of Siena

Via del Refugio, 4 - 53100 Siena (Italy)

tel +39-0577-280376 fax +39-0577-223895

<http://www3.unisi.it/santachiara/homeEn.html>



from [http://www.imss2013.it/school\\_venue.html](http://www.imss2013.it/school_venue.html)

## General Information

The **1st International Mass Spectrometry School** is aimed to give advanced education in mass spectrometry to graduate and PhD students, post-docs and scientists in the areas of chemistry, biosciences, food, environment, and medicine.

The school has a duration of six days, starting on Sunday afternoon and finishing with the lunch of Friday. It is a full immersion school with participants and lecturers living together for all the period, so to have many occasions of meeting and discussion.

The school consists of:

- a) **tutorial lectures** (40-60 mins) aimed at presenting theory, instrumentation and applications of mass spectrometry given by an international team of lecturers;
- b) **selected short orals** (10-15 mins each) by students on their own research activity.

[Fellowships](#) for students will be granted

from <http://www.imss2013.it/general.html>

## Registration **Registration End: June 15, 2013**

Students have to submit their [registration form](#).

Admission to the 1st IMSS will be done evaluating candidate CV and other parameters requested in the registration form.

For a profitable and fruitful learning, the number of students will be limited to 100.

### **Registration fees**

Registration fees cover participation to the school activities, a digital copy of the slides presented at the school, final diploma, coffee breaks, lunches, social dinner.

A number of [fellowships](#) are available.

The registration fees are:

PhD., PostDoc Students € 300,00

Others € 650,00

### **Accommodation fees**

Accommodation at the “Collegio Santa Chiara” or the University Residence “Il Refugio”.

The accommodation fees are:

Double room 5 nights, breakfast, 5 dinners € 250,00 per person

### **Cancellations and Refunds**

All cancellations made in writing and received by the [Organizing Secretariat](#) by August 15, 2013 (CEST) will be eligible for a full refund minus a € 150 administration fee. No refunds will be issued for cancellations received on or after August 15, 2013 or for no-show.

from <http://www.imss2013.it/registration.html>



## **Fellowships** Fellowship Request Deadline: April 30, 2013

A number of fellowships are granted by IMSF (n. 10) and DSM (n. 10) and possibly by other institutions to students for attending the IMSS 2013.

1. Students must be a member of one of the affiliated IMSF societies.
2. Applications must include evidence of student status, motivation for fellowship from the research supervisor, details of any other financial support.
3. Each fellowship covers registration, accommodation fees and include a travel grant.
4. The maximum travel grant will be

**€ 250.00** for students coming from Europe

**€ 450.00** for students coming from out of Europe

In any case, the overall amount of the fellowship plus travel grant cannot exceed € 1000,00.

5. Fellowship selection will be made by an international commission.
6. Payment of the travel grant will be made at the IMSS following presentation of the original receipts for travel expenses incurred.
7. The institutions which awarded the fellowship will not correspond on their decisions.
8. All recipients of fellowships must produce a one page report highlighting the scientific and educational benefits of attendance at the IMSS 2013.
9. The institution awarded the fellowship withholds the right to use these reports for publicity and host whole or edited versions on their websites.
10. The provision of the fellowship must be acknowledged in the short oral presentation if it will selected by using the logo of the funding institution. This logo must only be used for this presentation and must be deleted from the recipient's computer following the presentation.

Please see the [Fellowship Request Form](#) on page 18-19

### **Important Dates**

Fellowship Request Deadline: April 30, 2013

Notification of Fellowship: May 31 201

from <http://www.imss2013.it/fellowships.html>

## Accommodation

The “Collegio Santa Chiara” has single, double and some triple bedrooms for hosting, together with the other University Residence “Il Refugio”, 200 meters away, about 150 people.

Students and lecturers will be accommodated in the same residence, so to have many occasions of meeting and fruitful discussion.



from <http://www.imss2013.it/accommodation.html>

## Travel Information



Siena is located in Central Italy and it is easily reachable from every part of Europe and Italy.



**By plane**



**By train**



**By car**

from <http://www.imss2013.it/travel.html>

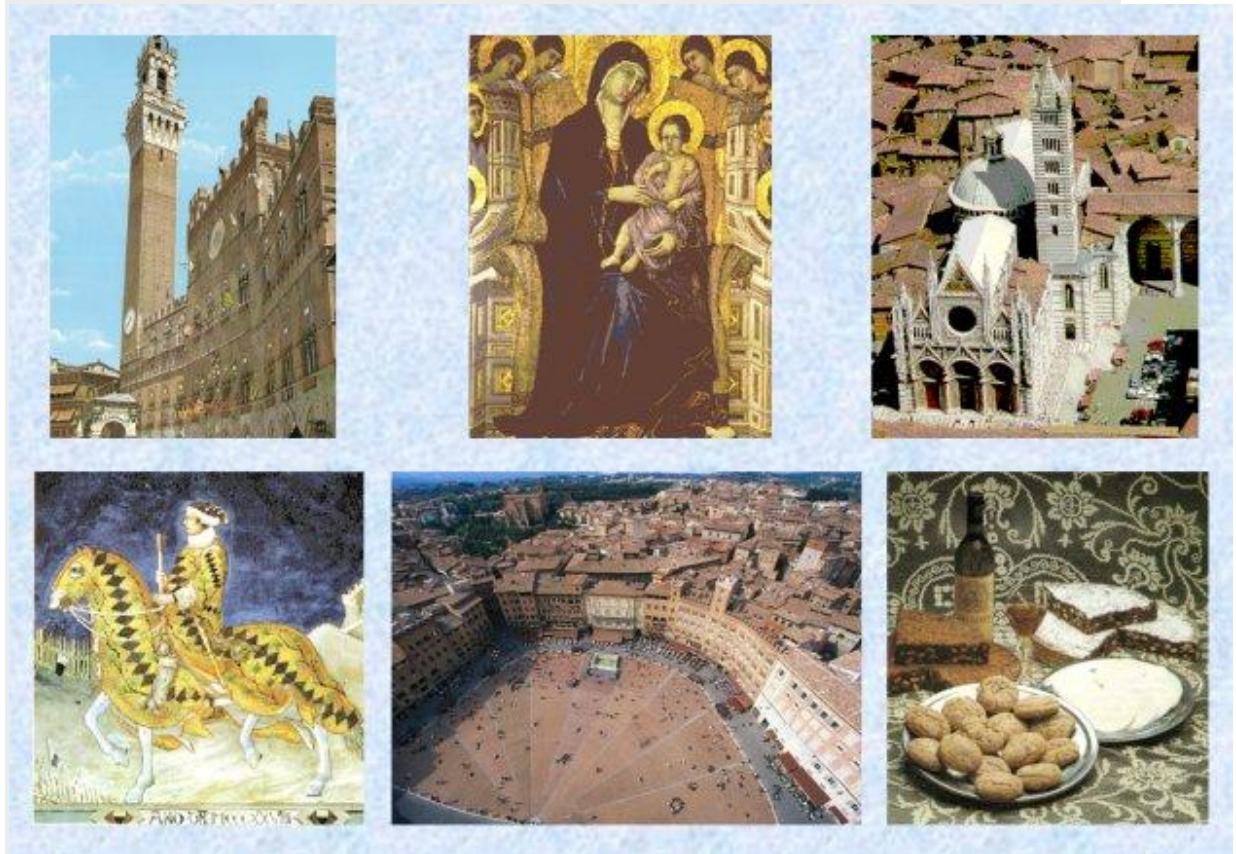
## Tourist information

Siena is a pretty town with about 57,000 inhabitants located in the centre of Italy, in the heart of Tuscany.

It is a lovely hilltop town founded by the Etruscans, where old buildings and precious works of art bear witness the magnificence and prosperity of Siena in the past centuries.

The historic centre of Siena has been declared by UNESCO a World Heritage Site. It preserves a remarkable degree of its medieval character with beautiful Gothic buildings, such as the Cathedral and Palazzo Pubblico (Town Hall).

The highest grandeur of Siena can undoubtedly be found in the field of plastic and figurative arts, with sculptors such as Jacopo della Quercia and Giovanni Duprè, painters such as Duccio di Buoninsegna, Simone Martini, Pietro and Ambrogio Lorenzetti, just to mention some the greatest!



Useful WEBSites for **tourist information** are:

**Terre di Siena** : <http://www.terresiena.it/index.php?lang=en>

**Comune di Siena** : <http://www.comune.siena.it/Il-Turista/Turismo>

from <http://www.imss2013.it/tourist.html>

# VISA

## **VISA REQUIREMENTS**

Depending on their citizenship, country of long-term residence, and the duration and reasons for their staying, participants can need a visa to enter Italy.

Please visit the website of Ministry of Foreign Affairs of Italy at

[http://www.esteri.it/visti/index\\_eng.asp](http://www.esteri.it/visti/index_eng.asp)

It is each participant's responsibility to obtain a Visa to enter Italy. However, School Secretariat can send documentation that may be included in visa application by the participants. The documentation may include Letter of Acceptance to participate to the IMSS.

from <http://www.imss2013.it/visa.html>

## Contact us

### **IMSS2013 information**

e-mail: [info@imss2013.it](mailto:info@imss2013.it)

### **IMSS2013 registration**

e-mail: [registr@imss2013.it](mailto:registr@imss2013.it)

### **IMSS2013 chairman**

Prof. Gianluca Giorgi

Dept. of Biotechnology, Chemistry and Pharmacy

via Aldo Moro

I-53100 Siena (Italy)

tel. +39-0577-234241 fax +39-0577-234233

e-mail: [gianluca.giorgi@unisi.it](mailto:gianluca.giorgi@unisi.it)

from <http://www.imss2013.it/contact.html>



**1<sup>st</sup> International Mass Spectrometry School:**

**Advances in identification and structural characterization of bioactive molecules**

**Siena (Italy), September, 15-20, 2013**

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**REGISTRATION FORM**

Deadline: **June 15, 2013**

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*Complete all details and forward to: [registr@imss2013.it](mailto:registr@imss2013.it)*

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Family name ..... First name .....

Institution .....

Address .....

City .....

Postcode ..... Country .....

E-mail ..... Tel .....

Student    YES  (attach a student declaration)                      NO

Statement of support from relevant supervisor:

.....  
.....  
.....  
.....  
.....

Supervisor Name (please print): ..... Signature: .....

Position: ..... Date: .....

Fellowship request    YES                       NO

If yes, complete and attach the fellowship request form

Short CV (15000 characters max) is attached. If not, this application will be discarded.

My short oral presentation proposed for the school is entitled:

.....  
.....

Its abstract (1 page, see template) follows. If not, this application will be discarded.

The undersigned ..... declares that if her/his short oral presentation will be selected, she/he accepts to present it.

Signature .....

**Registration fees** (check your selection)

- |   |   |        |
|---|---|--------|
| <input type="checkbox"/> PhD., PostDoc Students | € | 300.00 |
| <input type="checkbox"/> Others                 | € | 650.00 |

Registration fee cover:

- participation to the school activities
- a digital copy of the slides presented at the school
- coffee breaks
- lunches (Sept. 16-20)
- social dinner
- final diploma

**Accommodation fee** (check if required)

Accommodation at the “Collegio Santa Chiara” or the University Residence “Il Refugio”.

Price per person.

- |   |   |        |
|---|---|--------|
| <input type="checkbox"/> Double room 5 nights, breakfast, 4 dinners | € | 250.00 |
|---|---|--------|

If the present registration will be accepted, the undersigned ..... commits him/herself to pay the total amount of the participation fee € ..... according to the indications given in the letter of acceptance.

Date .....

Signature .....

**Information concerning the protection of privacy and the processing and utilization of personal data**

In accordance with law 675, passed on Dec. 31, 1996, we wish to inform you that the personal data you furnished in filling out the registration form for enrollment in the IMSS 2013 school will be used exclusively for enrollment purposes. In processing this information we guarantee that your privacy will not be violated and that this data will not be given or communicated to third parties. Failure to furnish information will entail no consequences, as you are not required to provide in. With regards to the utilization of this data, your rights are protected by art. 13 of law 675/96.



**Template for short oral presentation**

**TITLE OF THE PAPER (TIMES NEW ROMAN, CAPITAL,  
BOLD, 12 pt, SINGLE SPACE)**

*Name of Authors*  
(Times New Roman, italic, 12 pt, exact spacing 14 pt)

Affiliation  
(Times New Roman, 10 pt, exact spacing 12 pt)  
(2 lines spacing)

Text (Times New Roman, 12 pt, single spacing, justified) xxx xxxx xxxx xxxx xxxx xxx xxxx xxxxx  
xx xxx xxx xxxxx xxxx xxx xxxx xxxx xxxxx xx xxxx xx xxxxxx xxx xxx xxxx xxx xxx xx xxxxx  
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Reference Times New Roman 10 pts. Paper title not requested.  
T. Surname1, P. Surname2, *Journal*, vol, pages (year)

**PLEASE, DO NOT EXCEED ONE PAGE**



**1<sup>st</sup> International Mass Spectrometry School:**

**Advances in identification and structural characterization of bioactive molecules**

**Siena (Italy), September, 15-20, 2013**

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**FELLOWSHIP REQUEST**

Deadline: **April 30, 2013**

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*Complete all details and forward to: [registr@imss2013.it](mailto:registr@imss2013.it)*

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**Your Name:** .....

**Your Address:** .....

**City:** .....

**Postcode:** ..... **Country:** .....

**E-mail:** ..... **Telephone:** .....

**Motivation for fellowship request from relevant supervisor:**

.....  
.....  
.....  
.....

**Supervisor Name (please print):** ..... **Signature:**.....

**Position:** ..... **Date:** .....

**Actual (or estimated) cost of your travel to the School (specify amount and currency):**

.....

**Other financial support (please specify amount, source and currency):**

.....  
.....

**I am a member of the following affiliated mass spectrometry society (specify name of IMSF affiliated society):**

.....

**I confirm that I am a student applying for a fellowship to attend the IMSS 2013 School and I certify that all of the information above is correct. (False representations will invalidate this application.)**

**Student Name (please print):** ..... **Signature:** .....

**Date:** .....



**ITALIAN CHEMICAL SOCIETY  
DIVISION OF MASS SPECTROMETRY**

*[http://www.soc.chim.it/divisioni/spettrometria\\_di\\_massa](http://www.soc.chim.it/divisioni/spettrometria_di_massa)*



# 1<sup>st</sup> International Mass Spectrometry

School:

Advances in identification and structural  
characterization of bioactive molecules

Siena (Italy), September 15-20, 2013

## School program

<b>Sunday, September 15</b>
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- 16:30 Registration
- 18:00 Opening session
- 18:30 History of mass spectrometry
- 19:15 The future of mass spectrometry
- 20:30 Welcome & music cocktail

**Monday, September 16*****Ionization techniques: soft methods and new developments***

- 8:30 Soft ionization techniques: ESI, DESI, APCI.  
Mechanisms of ion production
- 10:00 Coffee break
- 10:30 Matrix-assisted laser desorption/ionization
- 12:00 Ambient mass spectrometry
- 13:00 Lunch

***Ionization techniques for volatile molecules.  
Analyzers (I): beam instruments***

- 14:30 Ionization of volatile molecules: electron  
ionization (EI), chemical ionization (CI).  
Fragmentation processes, energetics
- 16:00 Coffee break
- 16:30 Fundamentals of decomposition mechanisms of  
odd-electron ions
- 17:45 Analyzers (I). Beam instruments: sectors,  
quadrupole, time-of-flight
- 19:00 End of session

**Tuesday, September 17*****Analyzers (II). Resolution, accurate mass measurements***

- 8:30 Analyzers (II). Ion traps: multipole ion traps, FT-ICR, Orbitrap
- 10:30 Coffee break
- 11:00 Resolution, accurate mass measurements. Examples and applications
- 13:00 Lunch

***Coupling MS with separation techniques. Tandem mass spectrometry (I)***

- 14:30 Coupling MS with GC, GC×GC
- 16:00 Coffee break
- 16:30 Coupling MS with HPLC, UPLC, UHPLC, CE
- 18:00 Tandem mass spectrometry (MS/MS) and MS<sup>n</sup>: instrumentation and methodologies (I)
- 19:00 End of session

**Wednesday, September 18*****Tandem mass spectrometry (II). Fundamentals.  
Interactions of ions with electrons and surfaces***

- 8:30 Tandem mass spectrometry (MS/MS) and MS<sup>n</sup>: instrumentation and methodologies (II)
- 9:30 Fundamentals of decomposition mechanisms of even-electron ions: ion-dipole intermediates; ion-neutral complexes
- 10:30 Coffee break
- 11:00 Stereochemistry and chiral recognition
- 12:00 ECD, ETD, interactions of ions with surfaces
- 13:00 Lunch

***Peptides. MS Imaging***

- 14:30 Prompt/metastable, CID, SID, ExD fragmentations of peptides and ion structures
- 16:00 MS Imaging
- 17:30 End of session
- 17:45 *Urban trekking* in Siena: discover the Gothic magnificence and sneaking corners of the town .....
- 20:30 Social dinner !



**Thursday, September 19*****Ion mobility. Proteins***

- 8:30 Ion mobility
- 9:45 MS and tandem MS in the characterization of proteins and their post-translational modifications
- 11:00 Coffee break

***Do it by yourself !***

- 11:30 Exercises on MS and MS/MS interpretation, mechanisms, .....

**Award for the best MS solver!**

- 13:00 Lunch

***Short orals. Ion spectroscopy***

- 14:30 Short orals by students

- 16:00 Coffee break

- 16:30 Ion spectroscopy

- 18:00 Short orals by students

**Award for the best short oral!**

- 19:00 End of session

**Friday, September 20***Session 1: MS and life sciences*

- 8:30 MS and pharma: an overview
- 9:30 MS in diagnosis and clinical biochemistry
- 10:30 Coffee break
- 11:00 Biomarkers and drug discovery
- 12:00 Metabolomics

*Session 2: MS and food*

- 8:30 MS in food science, technology and nutrition
- 9:30 Food authentication and traceability
- 10:30 Coffee break
- 11:00 Multiresidue analysis in food
- 12:00 MS and food packaging
  
- 13:00 Arrivederci!
- 13:15 Lunch