# INTERNATIONAL INCOMING STUDENT'S GUIDE

# What you need to get the most out of Pavia and its university, and survive!





# UNIVERSITÀ DEGLI STUDI DI PAVIA

Corso Strada Nuova 65, 27100 Pavia, Italy e-mail: <u>welcomepoint@unipv.it</u>

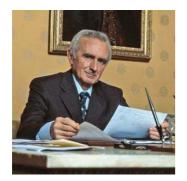
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WELCOME FROM THE RECTOR



### I'm glad to present you the University of Pavia

Our institution is one of the oldest universities in Europe and the oldest one in Lombardy. Since its foundation in 1361 it has been a good place to study for both Italian and foreign students.

Each year, thousands of students can appreciate the multidisciplinary vocation of our University and the hospitality of its campus, really unique in Italy for the possibility it offers of living and studying in a lively, intellectually challenging environment.

Our aim is to encourage our students' creativity, enhancing their capacity to engage with the great challenges of our society.

We set out to obtain this goal by offering a wide academic curriculum, by increasing our international policy and through the outstanding quality of our research.

### The Rector Prof. Angiolino Stella

**Prof. Angiolino Stella** was elected Rector of the University of Pavia for a 4-year academic term in 2005 and was reelected in 2009 for another 4-year-term.

International Incoming Student's Guide

# 1. Introduction

# **1.1 The International Relations Office and Welcome Point**

**The International Relations Office** is located in the city centre, in the main building of University.

Welcome Point for international students is located in the main entrance of the University – Corso Strada Nuova 65.

### **Opening Hours**

### International Relations office – Rector Office (2° floor)

Monday – Friday: 9.00 - 12.00 Monday and Wednesday: 14.30 - 15.30

Address: Corso Strada Nuova n. 65, 27100 Pavia Tel: +39 0382 984225 Fax: +39 0382 984695 Email: <u>catfox@unipv.it</u>

### Welcome Point - main entrance of the University

Monday - Friday: 9.00 - 12.00, 14.00 - 17.00

Address: Corso Strada Nuova n. 65, 27100 Pavia Tel: +39 0382 984021 Fax: +39 0382 984695 e-mail: <u>welcomepoint@unipv.it</u>

**Web IT**: unipv.eu > internazionalizzazione http://www.unipv.eu/on-line/Home/Internazionalizzazione.html

**Web EN**: unipv.eu > english > international relations http://www.unipv.eu/on-line/en/Home/InternationalRelations.html

# 1.2 The Italian Academic System

For years Italian universities have been taking part in the Bologna Process. It organizes university studies in 3 cycles:

Laurea - 1st cycle degree (Bachelor - Level) Access: by the Italian school leaving qualification, or a comparable foreign one. Admission: generally free; in some cases by entrance tests, depending on places availability. Workload: 180 ECTS credits

Laurea Magistrale - 2nd cycle degree (Master - Level) Access: by a related L3, or a comparable foreign degree. Admission: often free; in some cases by entrance tests, depending on places availability. Workload: 120 ECTS credits. Dottorato di ricerca - PhD (third level, 3 years) **Access:** by a related LS, or a comparable foreign degree in a related subject sector. **Admission:** by public competition, organised locally by individual universities.

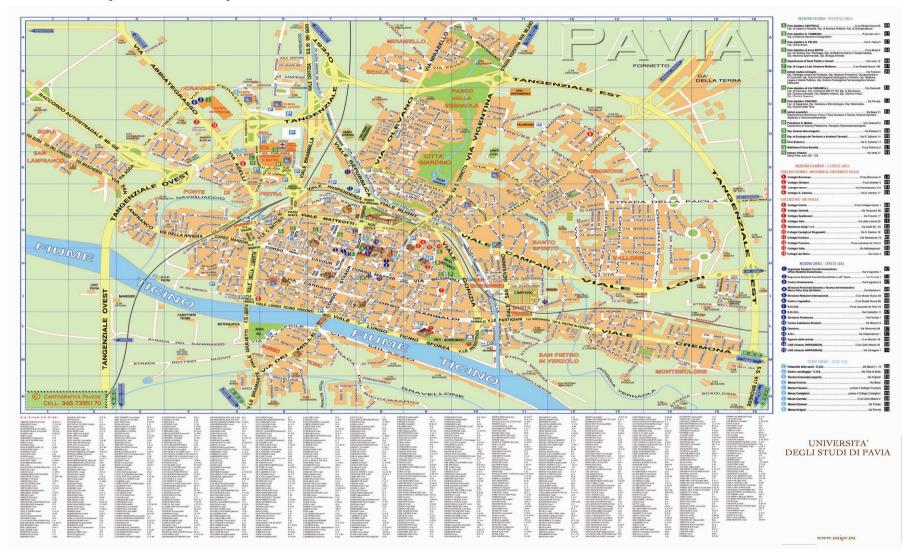
### ACADEMIC CALENDER

The academic year is divided into two semesters (4 trimesters):

- **1 SEMESTER:** from the End of September to Mid February
- 2 SEMESTER: from Mid February to July

### 1.3 Faculties

- Arts and Philosophy <u>http://lettere.unipv.it/</u>
- Economics <u>http://economia.unipv.it/sitonuovo/</u>
- Engineering <u>http://ingegneria.unipv.it/en/index.php</u>
- Law http://giurisprudenza.unipv.it/
- Mathematics, Physics and Natural Sciences <u>http://scienze.unipv.it/</u>
- Medicine and Surgery <u>http://nfs.unipv.it/</u>
- Musicology in the city of Cremona <u>http://musicologia.unipv.it/</u>
- Political Sciences <u>http://www-3.unipv.it/wwwscpol/</u>



### 1.4 Places you need for your studies

University of Pavia – International Relations Division Corso Strada Nuova n. 65, 27100 Pavia welcomepoint@unipv.it Tel +39 0382 984021 Fax +39 0382 984695 11

# 2. Means of Transport

# 2.1 Airplanes and airports Getting to Pavia

### From Milano Malpensa

Take a shuttle bus to **Milano Stazione Centrale** (central railway station) from outside the airport terminals 1 and 2. The bus runs every 20 minutes and costs about  $7,50 \in$ . It takes 50 minutes to get to Milan.

### From Milano Linate

There is a daily bus service from Linate airport to Pavia railway station. The departures are at 9.10 a.m, 11.50 a.m, 2.00 p.m. 4.50 p.m, 6.45 p.m and 9.05 p.m. The bus timetable is subject to change. Before leaving double check the timetable on the following website http://www.migliavaccabus.it/. A single ticket costs around 13,00  $\in$  and it takes one hour to get to Pavia.

There is also a regular bus service from Linate airport to downtown Milano. If you arrive at Linate, exit the airport (ground floor) and look for a "Starfly" bus going to Milano Stazione Centrale. The bus leaves every 30 minutes from 6.05 to 23.45 and costs about  $4 \in$ . You could also take an ATM bus N. 73 that runs every 20 minutes. The journey lasts about 25 minutes and it costs 1.50  $\in$ . The bus stops at piazza S. Babila and from there you can take the metro to Stazione Centrale.

### From Milano Stazione Centrale

You can easily take a direct train from Milano Stazione Centrale to Pavia. Check the train timetable in advance to avoid surprises. Depending on the type of train selected, the ticket may cost between  $3.70 \in$  and  $9.50 \in$ . Regional trains "*Regionali*" are the cheapest ones.

# 2.2 Trains and stations

The easiest way to check the train timetable is to go to the Italian railway service website: <u>www.trenitalia.com</u>.

You can find the English version at <u>http://www.ferroviedellostato.it/homepage\_en.html</u>. It is a reduced version of the Italian website and therefore it doesn't contain information on discount cards and other services.

### 2.2.1 Ticket Biglietto

The best way to buy your ticket is to do it at the train station. The ticket office in Pavia is open from 6.00 to 20.30. Some travel agencies as well as some newsagents are also entitled to sell train tickets (although the latter only sells tickets by the kilometre).

You can also buy your ticket on-line with a credit card and collect it from the self-service machine at the station. Alternatively, you can print out the payment receipt that will be e-mailed to you along with the reservation code (Codice PNR) if you choose the "ticketless" option. If you choose to collect your ticket from the self-service machine at the railway station you should have a confirmation e-mail and a reservation code. The self-service machine procedure will probably not save your time. On the contrary, it might be a bit annoying to find out that you will still have to queue and that the self-service machines

often do not work properly. You may have to go to the ticket office anyway to get your ticket.

**Regular tickets** are valid for two months. You can travel on all the trains that do not need a reservation. You should plan your journey in advance or allow enough time at the station before your train departure to buy the ticket. The station gets pretty crowded and the queue at the ticket office and at the self-service machines might get fairly long especially on Mondays and Fridays, when weekly commuting students usually travel, and also every day early in the morning or late in the afternoon.

It is obligatory to validate your ticket! Before starting, both the journey to and back, it is obligatory to validate the ticket using the yellow or orange punching machines near the platforms or in some cases at the station. Once validated, the ticket is valid for 6 hours for journeys with a distance less than 200 km, and 24 hours for travels with a distance greater than 200 km. In case you forget to validate your ticket, inform the staff on the train. You may have to pay a fine, but controllers are quite tolerant especially with foreigners. If the ticket office is closed and the ticket machine broken or there is no validating machine at the railway station, inform the staff before the departure and you will not be fined.

In Italy it is forbidden to smoke on trains and other public closed places such as restaurants, clubs, pubs, offices.

#### Glossary:

il treno	train
solo andata	single ticket
andata e ritorno	return ticket
parte	leaves
arriva	arrives
alle tredici	at one o'clock
seconda classe	second class
Da che binario?	From what platform?
convalidare	to validate (the ticket)

### 2.3 Buses and coaches Autobus e corriere

The coach (*la corriera* or *il Pullman*) is blue and travels to outlying villages. By coach you can also reach Milano. The cost of a single ticket to Milan is  $3,05 \in$ . To check the timetable go to: http://sila.it/pdf\_orari/175.pdf. For more info check the company website: www.sila.it

# You can buy the ticket directly on the coach or from some news stands and tobacconists':

### Bar Tabacchi Chieppi Patrizia

Via Ferrini, 10

### "L''Edicola Nuova" di Mastantuono Giuseppe

Corso Strada Nuova, 1/E

To travel within almost all Italian cities, take an orange city bus (*l'autobus*). You must purchase a ticket (*un biglietto*) in advance at a tobacconists' (*tabaccheria*), a news stand or the bus terminal. Board the bus via the front and rear doors and exit via the central doors. To avoid a fine, remember to punch your ticket, (*obliterare* or *convalidare il biglietto*), using the punch machine on the bus.

The **ordinary ticket** costs  $1.10 \in$  and allows you to travel on different bus lines for 60 minutes. The fine for traveling without a valid ticket is  $33.33 \in$  plus the price of a single ticket if you pay within 60 days from the day of getting the fine,  $100 \in$  plus the price of a single ticket if you wait for more than 60 days. There are also some night buses. For more information: <u>http://www.lineservizi.it/Noctibus/Noctibus.asp</u>

# 3. Bureaucracy

In Italy there are some government institutions you can contact depending on the problems you need to solve. Here is a list of some institutions that you can find in Pavia:

- CARABINIERI (military police, with duties very similar to the normal police) Emergency number: 112 Via Defendente Sacchi n. 31 Telephone: 0382 22145 POLIZIA (Police)
   POLIZIA MUNICIPALE (town police)
- POLIZIA MUNICIPALE (town police)
  Emergency number: 113
  Viale Correnti 1
  Telephone: 0382 33862
- POLIZIA FERROVIARIA
  Piazzale della Stazione 1
  Telephone: 0382 539370

In case you have to report a crime without an immediate danger, you should go to the police station (e.g. you've been robbed, you have lost your wallet and/or documents, you have been threatened, etc...)

 QUESTURA (police central station) Via Rismondo 68 Telephone: 0382 512525 (The *Ufficio Immigrazione* - immigration office - is located here.)
 SPORTELLO PER CITTADINI STRANIERI (Office for Foreigners)

c/o the Town Hall, Piazza Municipio 2 Telephone: 0382 399527

# 3.1 Lost passport

In case you lose your passport you have to report it to the police (or carabinieri) and go to your consulate with the police record to get a new passport. To know which is the nearest Consulate General of your country, go to:

http://www.esteri.it/MAE/IT/Ministero/Servizi/Stranieri/RapprStraniere/

# 4. University of Pavia

In this part of the guide you will find some practical information you will need in order to find your way around the university, to take advantage of all the services it offers and to get to know your rights and duties as a student in Italy. You will find in *italics* the Italian translation of many words, so you can learn new words easily and quickly.

# 4.1 Services

### 4.1.1 Canteens Mensa

In UNIPV's canteens, a complete meal includes a first course (generally *pasta* or *risotto*, a rice dish), a second course, a side dish, bread, a dessert or fruit and water. Even if you don't have your card you can have lunch and dinner at the university canteens. The price of a complete meal, without the canteen card, is  $\in$  7,50. If you need more information, contact the staff of the International Relations Office.

### Canteens – access with the student canteen card

### Mensa Cravino

<u>Via Bassi</u> (Scientific pole, near the Hospital, bus number 3 goes there) Telephone: +39 0382 422130

### Mensa Collegio Fraccaro

Piazza leonardo Da Vinci

(Town centre, Central University building, all buses go there) Telephone: +39 0382 304048

### Mensa Collegio Castiglioni

<u>Via San Martino 18/20</u> (Town centre, close to Piazza Ghislieri, 2 min walk from university) Telephone: +39 0382 33518

### Canteens- free access

### Mensa Unigest

<u>Via Ferrata</u> (Scientific pole, near the Hospital, bus number 3 goes there) Telephone: +39 0382 529682

### Mensa Centrale

### Via Carlo Alberto

(Town centre, Central University building, all buses go there) Telephone: +39 0382 33526

This canteen is also called *"Tre piani"* (three floors) or "Fast food": the ground floor offers a good choice of *panini* (sandwiches) and warm or cold main courses. The first floor has first courses and fresh vegetables, and the second floor serves very good pizza. You can also find second courses, vegetables, fruit and desserts almost on every floor. First courses are tasty!

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Opening Hours
Mensa Centrale	Lunch								12.00 - 14.15
Mensa Centrale	Dinner								
Mensa Fraccaro	Lunch								12.00 - 14.00
Merisa Fraccaro	Dinner								
Mensa Castiglioni	Lunch								12.00 - 13.45
Merisa Castiglioni	Dinner								19.00 - 20.30
Mensa Cravino	Lunch								12.00 - 14.40
Merisa Cravino	Dinner								
Mensa Unigest	Lunch								12.00 - 15.00
Mensa Onigest	Dinner								19.30 - 21.00

Canteens - Opening Hours



# 4.1.2 Computer facilities and Wi-Fi connection

There are several computer rooms available for student use. In all, there are 17 computer rooms where students can take lessons and computer classes, and make us of self-study facilities. The computer rooms are run by faculties or departments, and each of them has their own rules for access and opening times.

For more information: http://www.unipv.it/webaule

Another service offered by the University of Pavia is a free **Wi-Fi connection**: you can use your own laptop and surf the net in almost all the buildings of the university using your own nickname and password.

### 4.1.3 Books Libri

The course instructors will give you information about the books and the course readings needed. In some cases you may either get the handouts from the instructor or you'll have to purchase the course material. You should find the course books at the University Library (*Biblioteca*). Each Faculty has its own library.

You can borrow books for one month if they are not part of an official exam bibliography (compulsory readings). You can keep the exam materials only for some hours or a few days to make photocopies.

Please note that in Italy it is illegal to photocopy more than 15% of a text book.

# 4.1.4 Libraries and OPAC Biblioteche

Students will be provided with a wide and complete offer of about 35 libraries run by different faculties and departments. The whole library system contains over 972.000 books and about 19.000 printed periodicals, thus covering the whole range of academic teaching and research offer. All material owned by the different academic libraries is listed in an electronic catalogue, called **OPAC** (On-line Public Access Catalogue). By consulting this source, students can find online information about book offer, as well as about the placement and availability of the material they are interested in. It is possible to carry out different kind of searches, from the simplest to the more specific ones. A special section of the catalogue is provided for periodicals. The OPAC catalogue also includes materials that public libraries offer. Each library has its own opening hours and rules: libraries can be open from a minimum of 16 to a maximum of 50 hours per week, generally from Monday to Friday. To get more detailed information on the complete list of academic libraries and on their location, opening times and specific rules of each of them, please refer to the following website: http://opac.unipv.it/biblio/ateneo.php

To consult the OPAC, please refer to: http://opac.unipv.it/opac/ricerche.html

### 4.1.5 Bookstores Librerie

You can find several bookstores downtown. Here are the most popular ones:

Clu

Address: Corso Carlo Alberto

(Town centre, just opposite the central university building, all buses go there) Mostly university books.

### Voltapagina

Address: Corso Mazzini (Town centre, bus number 3 stops right in front of it) All kinds of books. It has a good second – hand section of books, CDs and movies.

### II Delfino

Address: Piazza Vittoria (Town centre, all buses go there)

Little and friendly, in this bookshop you don't find many university books but you find very qualified people.

### Feltrinelli

Via XX Settembre 21

(town centre, close to the Piazza Vittoria)

It's a big Italian bookshop's company. You can find also books in foreign languages.

# 4.2 University life Vita universitaria

### 4.2.1 C.U.S. University Sports Centre

The Pavia University Sports Centre C.U.S. carries out sports activities both in the university circuit (participation in the University National Championships and in national and international activities) and in the circuit of the National Sports Federations. The activities of the C.U.S. are carried out at the Polo Cravino facilities (consisting of three multi-purpose gymnasiums, a weight-lifting room, a fencing room, a soccer/rugby field, a soccer/archery field, a field for 5-man soccer, two beach volley courts and a exercise trail with gymnastic equipment), and at the canoeing-rowing facilities on the left bank of the Ticino River. Members can use the field for 5-man soccer and the volleyball and basketball courts by reserving in advance while the use of the beach volley courts and the exercise trail is free. All university students can become members of the C.U.S.. For information: http://cus.unipv.it/.

C.U.S.

Via Bassi, 9/A (bus n° 3, both directions, stops near the hospital) Telephone: 0382 526209 – Fax: 0382 423556 Monday – Friday: 9.00-12.00 Monday and Wednesday in the afternoon: 13.00-15.00

There is a new fitness centre called "**Campus Aquae**" near the Cravino Campus area. It has 5 swimming pools, a fitness centre and a variety of sports courses to choose from. For more information go to: http://www.campusaquae.it

### 4.2.2 S.A.I.S.D. Facilities for disabled students

S.A.I.S.D takes care of the facilities for students with special needs. It was established in the academic year 1999/2000 under the provisions of Italian legislation. S.A.I.S.D coordinates and monitors all the initiatives relating to the integration of students with special needs in all aspects of university life, making it possible for them to attend lessons, laboratory sessions, to get access to libraries and other university facilities.

S.A.I.S.D. Piazza Leonardo Da Vinci, 16 http://saisd.unipv.it/ disabili@unipv.it Monday, Tuesday, Wednesday: 9.00-12.00 / 14.00-16.00 Thursday and Friday: 9.00 -12.00

### 4.2.3 Student associations

The University of Pavia has many student associations. There are three Student Lists, representatives of all the students of the university: the Coordinamento per il diritto allo studio – Udu (left-wing), Ateneo studenti (catholic) and Azione Universitaria (right-wing). Every two years there are elections where students can vote the list they want and the elected students will take part in some administrative bodies of the University. A full list of student associations can be found at:

http://www.unipv.eu/on-line/Home/Navigaper/Studenti/Associazioni.html

### 4.2.4 Merchandising

If you want to bring home a souvenir of the University of Pavia "Shop Up" is the right place.

### SHOP UP

Central building of the University Tuesday - Friday: 9.30-13.30 / 14.30-19.00; Saturday: 10.00-12.30 / 15.30-19.00

### 4.2.5 UCampus

"Pavia Live U" was a student radio programme on air every weekend on Radio Ticino Pavia (FM 91.8), with music and news about the university life. Now there is "UCampus", the new *"web-TV-radio*" of the University of Pavia. You can watch and listen to it at: <u>http://ucampus.unipv.it/</u>

# 5. Health

# 5.1 *Health insurance*

# Assicurazione sanitaria

### How can I use health services in Italy?

You are required to have an Italian or international health insurance policy.

### What kind of health insurance do foreign students use?

All European Erasmus students have to travel to Italy with their European Health Insurance Card. The European Health Insurance Card, replacing paper forms such as the E111, gives access to immediate necessary care and doctors under the same conditions as nationals of that country.

Students coming from non-EU countries are strongly recommended to get hold of an insurance policy certified, translated by the Italian Diplomatic Representative abroad: in order to get the Residence Permit they are in fact required to have an Health Insurance for the entire duration of their stay in Italy.

Alternatively, once in Pavia, non-EU students who do not have such a private insurance policy, can enrol with the National Health Service (SSN) by paying a yearly fee (please note that it is valid until December 31st of the year in which it is subscribed) of around  $\in$  150. This has to be paid at the Post Office, by a bollettino postale on the account c/c n° 379222. Afterwards, students need to go to the Health Local Unit (ASL, Via Indipendenza, 3, Pavia) with the payment receipt and choose a Practitioner.

### European Health Insurance Card website

http://ec.europa.eu/social/main.jsp?catId=559&langId=en

# 5.2 First aid **Pronto soccorso**

Where can I call in case of emergency?

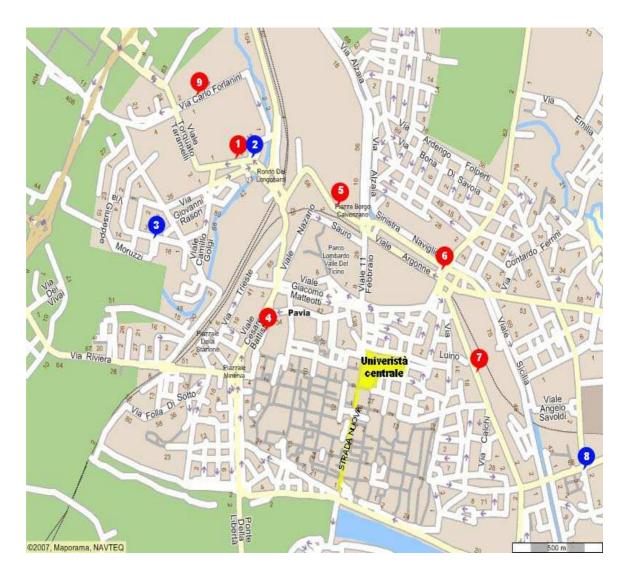
- > **118** Italian First aid number, it's **free** and it works 24 hours a day.
- > 0382 574127 Red Cross
- > 0382 527777 Green Cross

### What shall I say in an emergency call?

" Mandate subito un medico / un'ambulanza a questo indirizzo: Via/Piazza....(say your address) E' **urgente**!"

Hospitals and first aid facilities in Pavia

- 1- Ospedale San Matteo, Viale Golgi 19
- 2- San Matteo first aid centre
- 3- Green Cross first aid centre, Via Lovati
- 8- Red Cross first aid centre, Viale Partigiani 78
- 5- ASL (Local Health Institute), Viale Indipendenza 3
- 4- Fondazione Maugeri, Via Boezio 28
- 9,6,7- Azienda Ospedaliera della Provincia di Pavia, Via Forlanini 1



### In which situations can I call the first-aid station?

In case of an accident or other health-related problems, unless it is possible for you to go to the doctor or the hospital.

### Do I have to pay for the doctor on duty?

Yes, you do, if you are not recorded with the National Health Service. You should **always** ask for a proof of payment, in case you want a refund from your insurance company.

### Do I have to pay for the first aid services?

From January 2007, everyone has to pay  $\in$  25,00 to use the first aid services with white emergency code (the least urgent level of emergency). In more serious cases, if you are registered with the National Health Service, medical assistance is free. However, if you don't have the national health card ("tessera sanitaria"), you'll have to pay.

# 5.3 Pharmacies Farmacia

### Do I have to pay for every kind of medicine?

Yes you do, if you are not registered with the National Health Service. You should **always** ask for a proof of payment, in case a refund is possible by your insurance company.

### Are there price reductions on medicines?

If you are registered with the National Health Service you can get some medicines at a low price ( $\leq 2,00$  = pharmaceutical ticket). You get the discount when you give the pharmacist a prescription form a National Health Service doctor.

### Where can I find an open pharmacy at night or on Sundays?

Outside every pharmacy there's a notice board showing which pharmacy is open and its address. In this kind of a situation it is usually necessary to ring the doorbell for someone to open and serve you. The night service has got an additional cost on every medicine. Every open pharmacy can be recognized by a lit up green cross.

#### Where can I find medicines, apart from pharmacies?

Para-pharmaceutical shops and some supermarkets sell products that don't need prescription (bandages etc.).

### 5.4 Medicines Medicinali

<u>Is it possible to buy every kind of medicine by going directly to a pharmacy?</u> Some medicines (i.e.: antibiotics ) can be bought on prescription only.

### How can I get a prescription?

A prescription can be written

- 1. by a first aid doctor
- 2. by a doctor on duty
- 3. by a National Health Service doctor, chosen in you domicile area
- 4. by any doctor

Here is a table with the main active principles related to specific symptoms:

Symptoms	Active principle (in Italian)	Medicine names	Prescription
Fever	PARACETAMOLO	Tachipirina, Efferalgan	No
	(light anti-inflammatory)		
Headache	NIMESULIDE	Aulin	Yes
menstrual	strong anti-inflammatory		
aches, tooth ache,	IBUPROFENE	Moment, Buscofen	No
back ache	NAPROSENE	Aleve	No
		(with gastric protection)	
	ACIDO ACITIL SALICILICO	Aspirina, Aspirina C	No
Dysentery	LOPERAMIDE	Imodium, Dissenten,	No
		Diarstop	
Vomiting	METOCLOPRAMIDE	Plasil	Yes
	(strong)		
	DOMPERIDONE	Peridon, Motilium	No

Bacterial infection,	AMOXICILLINA (light antibiotic)	Zimox, Velamox	Yes
influence	AMOXICILLINA+ACIDO CLAVULANICO (strong antibiotic)	Clavulin, Augmentin	Yes
Flu	Association of anti-inflammatory + decongestant	Actigrip, Zerinol	No
Colic	N-BUTILBROMURO di IOSCINA	Buscopan	No
Muscular ache	DICLOFENAC	Voltaren emulgel (salve)	No
backache	KETOPROFENE	Fastum gel, Lasonil (salve)	No
Cutaneous infections	GENTAMICINA (antibiotic)	Gentalyn (salve)	Yes
Herpes labialis	ACICLOVIR	Zovirax, Cicloviran, Aciclin (salve)	No

### Is there any difference between branded and unbranded medicines?

The main difference is the price. The unbranded (generic) medicines are <u>cheaper</u> than the branded medicines. I.e.: Gentalyn (<u>branded medicine</u>) costs  $\in$  13,55 and Gentamicina (<u>unbranded medicine</u>) costs  $\in$  9.00

### ALL DRUGS ARE ILLEGAL IN ITALY!

# 6. Food and fun

# 6.1 Supermarkets and market places

The shops and boutiques in the central area are open from Monday to Saturday from 9.00 to 12.30 and from 15.00/15.30 to 19.30. The department stores and supermarkets are usually open from Monday to Saturday from 9.00 to 19.30.

Food shops are closed on Monday afternoons while other kind of shops are closed on Monday mornings. All shops are closed on Sundays. The major streets of the town, Corso Strada Nuova, Corso Cavour and Corso Garibaldi have many shops and boutiques that meet any kind of taste. Still, they are not the only place where to shop! In the narrow streets of the medieval part of the city, as well as in the suburbs, you can find plenty of charming groceries, bakeries, organic food shops, herbalist's shops, and much more.

In the centre of Pavia you will find two lively **market places.** The market place at Piazza Petrarca is open from Monday to Saturday, from early morning until approximately 14.00. The market is selling both food (such as fresh fruit and vegetables, bread, fish, honey, cheese and so on) and other kind of goods (i.e. clothes, shoes, flowers, toys and much more). On Wednesdays and Saturdays the market gets much bigger, and it is open until approximately 19.00. On Wednesday and Saturday mornings there is a market place also at Piazza del Duomo.

On Wednesday and Saturday mornings there is also a "Farmers' market" at Piazza del Carmine.

Here are the main supermarkets of the city:

- Esselunga, Via Fabio Filzi 6, close to the main bus station and railway station
- GS, Viale Matteotti 53, near the castle
- Dì per Dì in the market under the Piazza della Vittoria
- Coop, viale Campari 64

In supermarkets you can find many products, such as:

- food (big supermarkets usually have their own bakery, fresh meat counter, delicatessen and cheese counter);
- drinks
- toiletries
- electronic devices
- stationery
- cleaning products
- newspapers, magazines, books and DVDs
- etc.

When you go to a supermarket, remember to bring with you some coins,  $0.50 \in 1 \in \text{ or } 2 \in \text{because you need them to take your shopping trolley (the price depends on the supermarket). You have to insert the coin in to the slot next to the handle and then you can get a trolley. At the end, after you've paid, retrieve your coin returning the trolley to where you've took it. You don't need to pay any refundable deposit for the shopping baskets. In order to reduce the plastic bag waste, you won't get them for free from the supermarket. You can either bring your own shopping bag or buy the ones sold at the cash counters (they usually cost about <math>\in 0,05$ ).

To have an idea of the costs in Pavia, here you are some average prices of common goods:

1 kg of bread ( <i>pane</i> )	€ 4.00
1 I. of fresh milk (latte)	€ 1.30
1 pizza	€ 5.00
1 pint of beer ( <i>birra</i> ) at the pub	€ 4.00
1 coffee in a café ( <i>caffé</i> )	€ 1.00
1 bus ticket	€ 1.20
1 single ticket train to Milan	€ 3.70
1 cinema ticket	€ 8.00
1 newspaper (giornale)	€ 1.00
1 book ( <i>libro</i> )	€ 15.00

# 6.2 Bars, pizzerias and restaurants

The cafés are very important meeting points for Italians. You could start your day with a traditional Italian breakfast, which consists of a cappuccino (a cup of coffee and milk with foam) and a croissant. This type of breakfast is served in every café in Pavia. The price list is usually next to the counter. Don't forget that if you're sitting the prices are a bit higher. You might have to pay at the cash counter before consuming or when you get what you have ordered or even at the end before leaving, depending on the café.

At the Minerva square there is Bar Minerva where you can order coffee (mind that the Italian traditional espresso is just a sip of dark, strong liquid that might keep you awake for hours if you are not used to it), milk, cappuccino, hot tea, hot chocolate, juices and a great variety of croissants. A breakfast here usually costs about  $\in 2,20/2,40$ . Bar Minerva is also famous for the 'happy hour', that starts at 19.00 p.m. and finishes 2 hours later, during this time people meet after the day at work. You can have a drink that is often more expensive than usual, around  $\in 6$ , because you can also eat appetizers such pizza, pasta, rice and typical Italian dishes without paying for them. The so-called *"aperitivo*" is also a very popular social event. In every café, usually from 5 p.m. onward, you can get this combination of drinks and appetizers. Some cafés are very generous with the variety and amount of food they offer, other ones just give you chips and olives.

Other popular cafés among students, and which are closed to the central university, are Mai Pagüra ("never fear" in the local dialect) a new veggie bar, the Caffè dell'Arte, famous for its excellent coffees, always served with some biscuits or chocolates, and the historical Pasticceria Vigoni, a "must" in Pavia!

At Piazza Vittoria there are cafés too; five or six little cafés where you can have an Italian breakfast. These cafés are located in the most important square of Pavia and during spring and summer you can sit outside and enjoy the warm weather. These cafés also offer good lunches and happy hour.

And finally you can visit the Caffé dell'Università, meeting point for a lot of people, mostly students. The café is located in one of the courtyards belonging to the Faculty of Political Science, in the central University campus, the one in the centre of Pavia. It is relatively cheap, in fact, a coffee only costs  $\in$  1,00, a cappuccino  $\in$ 1,20 euro the same as a croissant. On Wednesday evenings, from 18.30 to 11.00/ 12.00 p.m., a lot of people meet

here to have a drink, a chat and some fun, with some music played by a DJ. Here you can also have sandwiches or salads for lunch.

If you want to have a traditional Italian pizza, for lunch or dinner, you can choose between many restaurants. Three places enlisted above are located in the town centre, however you can find a good pizza almost everywhere.

- Pizzeria "Da Giulio", (closed on Thursdays) placed in Matteotti Street, n°39, near the supermarket GS;
- Pizzeria "Marechiaro", (closed on Mondays) located in Vittoria Square, n°9, near Mc Donald's;
- Pizzeria "Amalfitana", (closed on Tuesdays) situated in Digione Street, n°2/a.

Here you can eat a great variety of pizzas and the prices change depending on the type of pizza you choose and on what you drink. If you order a "margherita", the traditional one, with a bottle of water, you might pay about 8,50/9,00 euro. If you want to spend far less and still have your pizza, just buy a take-away one (or "*da asporto*"), it is possible in most pizzerias, and you will have your Margherita for just  $3,50-4,00 \in$ .

There are also some foreign restaurants in Pavia: Japanese (Hana Sushi, Hanami and Asahi), Chinese (La Giada), Greek (Taverna Santorini), Lebanese (Biblos), Thai (La Pagoda), German (Bierhaus) and so on.

If you are in a hurry or you don't have much money, you can eat a *kebab* (middle-eastern food, with meat and vegetables) for  $\in$  3,50 or a *focaccia* (a sort of bread from Liguria region, with olive oil, olives, cheese or onions) for  $\in$  1,50 -  $\in$  2,00.

In Italy we usually do not give **tips** in restaurants, cafés, or taxis. In cafés the service is included as you pay more for your order if you are sitting at a table. In restaurants or pizzerias, there is usually an additional fee you have to pay for "coperto" (which means "for service"). It is a fixed amount, no matter how much you spend, usually around  $\in$  1,50/2,00, and it will be automatically added to your bill.

Now let's say something about the **traditional food** of Pavia: this cuisine is a sort of mix, with regional influences from Piemonte, Emilia Romagna and Milan. The most common food is *risotto*, cooked with a wide range of ingredients (mushrooms, vegetables, saffron or "lüganiga", a sort of sausage). Also friend *frogs* (rane) are a traditional dish- Other dishes are *agnolotti, ravioli di brasato* (fresh pasta filled with meat), *zuppa pavese* (a local soup with eggs), eels, snails, and goose salame. Pavese gourmands appreciate also the typical Varzi salame, the cheeses *Grana Padano, Taleggio* and *Gorgonzola*, truffles from the Oltrepò hills and, as dessert, the *Torta Paradiso* ("Paradise cake"), the biscuits *Offelle di Parona* and the *Pane di San Siro*. Among wines, all coming from the Oltrepò zone, we must mention the red ones bonarda (quite sparkling), pinot nero, buttafuoco, sangue di giuda (sweet sparkling), the white riesling italico and the famous spumanti (sparkling wines).

# 6.3 Nightlife - What does Pavia offer at night?

The Caffé dell'Università is an important meeting point for students on Wednesdays. Another popular pub where you can go every night, except on Mondays when it's closed, is Safarà on Strada Nuova. You can have a drink or a beer there with your friends and see a lot of people chatting not only inside, but also outside, along the street. Nearby there is the American Bar II Pozzo, which offers good discounts to students and tasty "ethnic" aperitifs. Closed to the Ponte Coperto, the Bar del Ponte is one of the most appreciated bars, mainly on Wednesdays night. A lot of students, in particular the "alternatives" (rastas, punks, etc), go to Via Siro Comi, a parallel road to Strada Nuova, to Osteria Sottovento, where you can have sandwiches, traditional and veggie food, drink good beers and wines, play chess, read books and magazines, play the piano or surf on the net using the free WI-FI. For beer lovers, a few steps from Sottovento there's the San Tommaso Pub, offering a wide range of International beers (form Belgium, Germany, France, Ireland and U.K.). San Tommaso is known for its funny ways of drinking: you can ask a "giraffe" (a big and tall carafe, to share with friends) or play chess and draughts with small glasses of beer.

In Piazza della Vittoria there is an Irish pub called Broletto, where you can drink some excellent beers. There is another Irish pub, the Caffè Dublino, where you can also eat Mexican food and grilled meat. Maybe you'd like to have a beer while watching a game (football championship or Champions League): in this case, go to the Bistrot Ateneo, a few steps from the central building of the University.

The well-known Spaziomusica in Via Faruffini offers every week live music at low prices with national and international artists! Another place worth a visit is Jamaica located on via Pastrengo (in the Vallone suburb). It is quite difficult to reach without a car, but there you can have for  $6 \in a$  pot of alcoholic or non-alcoholic fruity cocktail topped with a rich selection of tropical fruits. The atmosphere is unique, with a waterfall wall, meter-long strolls and unique furniture.

You can always find a couple of clubs just outside Pavia. There is an organized bus service to and from several areas of the town until late in the night. Just pay attention to the ads you can find on the notice boards around the university. You can also check out the ads on our really nice Residence Halls parties (*feste dei collegi*), usually around Christmas or beginning of the summer (limited tickets, unlimited drinks), and other events such as classical concerts and conferences.

# 7. Post, banks and telephones

# 7.1 Post office

Post offices are marked with a "Poste Italiane" (or PT) sign (blue text on yellow background). The central office (Poste Centrali) is very close to the central university buildings, right behind the three medieval towers at Piazza L. Da Vinci.

### POSTE CENTRALI

Piazza della Posta, 1

Telephone: 0382 392230 - Fax 0382 392201

Other post offices are located all around the city (there is one near the railway station) and they are generally open in the mornings only, Mon-Fri 8.00-14.00, Sat 9.30-13.00.

# 7.1.1 Sending a letter, a postcard...

Stamps are available at post offices and at tobacconists. Prices change regularly, it is a good idea to check on the Poste Italiane website (http://www.poste.it) or ask directly the tobacconist/ postal officer. Red mail boxes are usually located outside post offices and tobacconists. They have two slots:

1) "Per la Città": city mail

2) "Per tutte le altre destinazioni: all the other domestic and international destinations. For important letters or documents or if you have to send something before a given deadline, we recommend a mailing system that gives you a traceable receipt (such as "posta raccomandata": registered mail). Poste Italiane has its own service but also private services are available:

UPS, Telephone : 800 877 877 www.ups.com/content/it/en/indix.jsx

TNT, Telephone: 803 868 www.tnt.it

DHL, Telephone: 199 199 345 www.dhl.it/publish/it/en.high.html

Bartolini www.bartolini.it/eng

# 7.2 Banks

Banks are open from 8.30 until 13.30 and from 15.00 to 16.00 (afternoon opening time may vary about 15 minutes, depending on the bank). Banks are closed on Saturdays and Sundays. In some banks you must place your bag in a locker at the entrance. Failure to do so can stop the electronic doors from opening. ATMs (*Bancomat*) are easy to find and operate on the Cirrus network.

# 7.2.1 Lost or stolen credit card

Call the emergency numbers: American Express: 06 72 90 03 47 Diners: 800 864 064 (toll free) Master Card: 800 870 866 (toll free) Visa: 800 819 014 (toll free) *Cartasi*: 800 15 16 (toll free). Once you have blocked you card, you must go to the Police to file a loss/theft report. Then you have 48 hours to fax the police report at one of the following numbers: 02 3488 4140/4141. You are also supposed to inform your bank.

# 7.3 Telephones

First of all: Italy's International code is 0039 (or +39), so to call Italy from abroad you should dial **0039** and then the required number. (like: +39 0382 xxxx).

### 7.3.1 Public phones Cabine telefoniche

Public phones are available outdoors, in many public squares and streets, as well in commercial outlets such as bars and restaurants. You will need to purchase a phone card from the tobacconist's, newsstand, post office or petrol station to be able to use public phones. If you are phoning your home country it might be worthwhile to purchase a preaid Phone card before coming to Italy. Public phones do not usually accept credit cards.

### 7.3.2 Mobile phones cellulari

There are many different mobile phone companies in Italy such as Telecom, Vodafone, Wind and 3 (that has also Skype). There are also some smaller companies, like Coopvoce or Poste Mobile (a service of Poste Italiane, very convenient to call foreign numbers).

In order to get a SIM card you have to go to a mobile phone shop with your ID card or passport and the fiscal code (codice fiscale). You will be given your card immediately.

We suggest you to ask how much is the monthly charge if you subscribe to a year-long contract ("abbonamento"). You can also buy rechargeable cards ("carta ricaricabile") if you don't want to subscribe to a long term plan. If get a telephone contract, make sure you find out how much it costs to unsubscribe, and how many months notice you must give (if any).

You must have your fiscal code (codice fiscale) and your passport with you when you purchase a mobile phone/phone card in Italy!

# 8. Tourism and free time

# 8.1 History

The city of Pavia was founded on the left bank of the River Ticino more than two thousand years ago. Nowadays, almost 75.000 people live in this city situated only 35 km from Milan. Pavia was founded in the 5th century B.C. as a Gaul-Ligurian village; it became a Roman colony in 89 B.C. and was called *Ticinum*. The city was organized in accordance with the typical structure of a Roman castrum with streets meeting at 90-degree angles still to be appreciated in the structure of the modern city. Thanks to its favourable strategic position, controlling the area crossed by the Rivers Ticino and Po, Pavia played a major political and economic role during the late Roman Empire and the early Middle Ages. It came to be known as Papia and retained its strength and prestige as a capital city under the Ostrogoths and, subsequently, under the Lombards (572) and Franks (774). For centuries Pavia was an important centre of the future Sacred Roman Empire: King Lotharius, in 825, established an important imperial school of law and several monarchs and emperors were crowned in Pavia. The city was also one of the most important stages along the antique Via Francigena, the pilgrim's route leading from Canterbury to St. Peter's tomb in Rome. Having become an independent municipality thanks to its economic prosperity. Pavia was able to lay the foundations for a lively urban development and the flourishing of Romanesque art. However, during the Middle Age, the town lost its prosperity and political relevance, until it passed under the Seigniory of the Visconti family, when Pavia became one of the most elegant courts of the Italian Renaissance. In 1360, the Visconti family established the university, which is one of the oldest in Italy and Europe. The Sforza seigniory, after the Visconti rule, began the construction of major public buildings such as the first core of the university and the cathedral. In 1872 the city was partly modified, starting from the demolition of the medieval walls.

# 8.2 Weather

The weather in Pavia is typical of the lower Pianura Padana, rainy and humid. Fall is foggy, winter is cold (sometimes it snows), spring is warm but it often rains and summer is hot, with sudden storms. The best period is between spring and summer. There are lots of mosquitoes during the summer! Insect repellents are definitely worth a try.

# 8.3 Sightseeing and Museums

# 8.3.1 Sightseeing

Pavia is a small town but it offers a number of touristic and cultural attractions, like the Castello Visconteo (1360). The castle was built as an armed stronghold and a lordly residence. It has an imposing quadrangular structure and a very nice courtyard, characterized by the elegance of its architectural components and the airy porticoes and loggias. Another charming castle near Pavia is the Castello di Mirabello (XIV century). Piazza Vittoria (XIV century), the most beautiful square of Pavia, is the very heart of the town. It is dominated by the elegant building Broletto (XII century) and the imposing and majestic dome of the Duomo (cathedral, century XV). The building of the Duomo covered one of the longest time spans ever in the history of the Italian architecture and was especially complex. Great masters such as Bramante and Leonardo Da Vinci contributed to it. The dome of the imposing Duomo that Ascanio Sforza wanted built in the city centre, is the third largest in Italy - after the dome of St. Peter's and the Cathedral of Florence. The plan of the church, in which an octagon-shaped core covered by the dome is merged

with a longitudinal body consisting of a nave and two aisles, is unanimously attributed to Donato Bramante, who also designed the crypt (completed in 1492), that he most likely modelled after some Roman monuments. The importance attained by this building also led Francesco di Giorgio Martini and Leonardo to Pavia in 1490. Leonardo's many drawings and sketches for composite buildings with a central core show many similarities with the plan of the Duomo in Pavia. When the city fell under Spanish political influence, it was strengthened by ramparts and bulwarks that made it impregnable. In the early 18th century Pavia became part of the Hapsburg domains; construction activities became widespread and the city was embellished by late-Baroque and Neoclassical palaces.

At the Duomo square, we can see an equestrian bronze statue (a copy of the original) also known as the "Statua del Reggisole", a monument to the emperor Theodoric. The austere Bishop building (XVI century) is characterized by its elegant colonnade and portal. Until 1989 the square was dominated by the ancient Torre Civica, a medieval tower that suddenly collapsed causing the death of some people and lots of damages in the nearby buildings, cathedral included.

Corso Strada Nuova is the most important road of Pavia, following the trace of the ancient Roman cardo. Many buildings were built along Strada Nuova: the university (the actual building was built during the Austrian rule in the XVIII century) with its characteristic courtyards, the Theatre Fraschini (1771) an important Pavese cultural centre, or the elegant Arnaboldi Gallery, Pavia's commercial centre at the end of the XIX century. At the end of Strada Nuova, the famous Ponte Coperto, symbol of the town, join Pavia to the suburb of Borgo Ticino, on the South Bank of the Ticino river. The Ponte Coperto is a reconstruction of the ancient roman bridge, modified by the Visconti of Milan (XIV century) and seriously damaged during the Second World War.

Behind the university, near the "Theresian courtyard", Piazza Leonardo da Vinci is dominated by three old Medieval Towers (XI-XII century): they are some of the few existing towers among the ancient "hundred towers" sang by the poet Petrarca. Historians are not sure about their aim even if they tend to discard a defensive role.

Other civil buildings of artistic interest are the baroque Palazzo Mezzabarba (centre of the Municipality), the Pinacoteca Malaspina, the buildings Bottigella, Olevano and the Collegio Borromeo.

Among churches, one of the most important is San Michele (1120, but originally built by the Lombards), considered the Romanesque masterpiece of Lombardy. The church is also known for being the site of Frederick the Red-Bearded's crowning in 1155. The church hosts some real treasures like the Theodote's Crucifix (X century) and a mosaic floor. Another jewel is San Pietro in Ciel d'Oro Church (VIII century), built during the rule of the Lombard king Liutprand to host St. Augustine's mortal remains: it is one of the most famous in the Christianity, quoted also by three major poets: Dante Alighieri, Petrarca and Boccaccio.

A wonderful example of the Lombard gothic style is the majestic S.ta Maria del Carmine Church (XIV century), near Piazza Petrarca, hosting several art masterpieces. S. Francesco Grande (XIII century) is another gothic Church, situated near the University. San Lanfranco church, built during the same period, is a Romanesque building like S. Pietro in Verzolo (which has also baroque parts), and it is situated within a short distance walk from the city centre. Close to Santa Maria del Carmine, S. Giovanni Domnarum (VII century) is one of the oldest churches in Pavia, built on a pre-Romanesque structure (the only antique part is the crypt). The ancient frescoes of the crypt and the rose window of the XV century are worth a visit. Another old church is San Teodoro (XII century), situated in the antique "Roman" part of the town (between Piazza Vittoria, the old Roman foro and the river), with frescoes dating back to the Middle Age and the Renaissance. Among the religious buildings, we can not forget the baroque style San Luca church (XVI-XVII century), hosting a prestigious organ made in year 1835; Santa Maria di Canepanova, built near the Medieval Towers; the Romanesque Santa Maria in Betlem (XII century), in the picturesque suburb of Borgo Ticino; the former San Felice monastry (VIII century), nowadays the centre of the Faculty of Economics, still preserving the old cloisters and the deconsecrated church (nowadays a study room) with wonderful frescoes. Last but not least, there is the Santi Gervasio e Protasio church that should be the first Church of Pavia according to the tradition, established by bishop Siro (patron saint of Pavia) during the IV century.

A few kilometres north from Pavia, we can find the famous Certosa di Pavia, founded by Gian Galeazzo Visconti in 1396. The Certosa is one of the most renowned monuments of Renaissance art in Italy. Work on the building that stands isolated on the plain surrounding Pavia, continued from the end of the 14th century until the mid-16th century, together with the contemporary Cathedral of Milan. Construction began on the area reserved to the monks in the early 15th century, including cells, a chapter house, a scriptorium, a dining hall, and a vestry. The building was completed in 1542 and was also used as a "mausoleum" for the Visconti dynasty. There is also a larger cloister, containing small house-like cells where the monks lived, worked and prayed in solitude; guest rooms (the so-called "Duke's Palace", currently housing the Museum of the Chartreuse); the dormitory; a pharmacy; cellars, and storerooms for grains. The whole complex is surrounded by fields, lawns and vineyards, which were once attended to by the monks. Inside, the church hosts valuable paintings, sculptures and decorations such as the paintings and frescoes, the stained-glass windows, the famous ivory polyptic, the marble tombs of Ludovico il Moro and Beatrice d'Este (Cristoforo Solari) and Gian Galeazzo Sforza (Gian Cristoforo Romano).

### 8.3.2 Museums

### • Musei Civici (Civic Museum) - (in the Castello Visconteo).

Piazza Castello

From Tuesday to Saturday: 9.00-13.30; Sunday: 9.00-13.00. Telephone: 0382 33853

Museo della Tecnica Elettrica (Museum of the Electric Techniques)
 Via Ferrata

E-mail: <u>info@museotecnica.it</u> Telephone: 0382 984104/ 984105 www.unipv.it/museotecnica

- Museo di Archeologia (Archeology Museum) established in 1819
   Central building of the university
   Corso Strada Nuova, 65
   Telephone: 0382 504497
- Museo di Storia Naturale (Natural History Museum) established in 1771 by the Archduchess Maria Theresa of Austria Via Guffanti, 13
- Museo per la storia dell'Università (Museum for the History of the university) established in 1932

Central building of the university Corso Strada Nuova, 65 Telephone: 0382 504709, 0382 504659 Monday: 15.30-17.00, Friday: 9.30-12.00. Free entry.

 Orto Botanico (Botanical Garden) Telephone: 0382-22534. You must book your visit.

# 8.4 Cinemas and theatre

- Cinema Politeama, Corso Cavour, 18/20 Telephone: 0382 530343
- Multisala Corallo Ritz, Via Bossolaro, 15 Telephone: 0382 539224

A ticket costs about 7,00 $\in$  but you usually there are discounts on Mondays. Students can pay 5,00  $\in$  from Monday to Friday in both cinemas showing the Carta Ateneo. You can also book your ticket by phone or e-mail:

### C.I.E. srl

Telephone: 0382 301180 contattaci@salapoliteamapv.it http://www.cinemapavia.it

### **Teatro Fraschini**

Students can get discounts on tickets. If you are interested, please contact the Ufficio Affari Generali of EDiSU.

TEATRO FRASCHINI Corso Strada Nuova, 136 Telephone: 0382 371214 biglietteriafraschini@comune.pv.it http://www.teatrofraschini.it

# 8.5 Parks and wildlife reserves

Pavia has some spacious parks and public gardens, really loved by the local people and also by students. It is a pleasure to lie on the grass during the beautiful spring days, for studying, reading a book or just having some rest, at the charming park of the Castello Visconteo or in the green Area Vul, in the picturesque suburb of Borgo Ticino, crossing the Ponte Coperto. Both are a few minutes walk from the university central buildings.

For sports lovers or for those who like just go for a walk, we suggest to go to the Parco della Vernavola, that is very close to the city centre. Other public parks are the Parco urbano della Sora and the beautiful wildlife reserves Bosco Negri, Bosco Grandi and Oasi Sant'Alessio, a few minutes from the city.

The surrounding areas of the city, lying on the plain, are very beautiful: a few steps from the centre there's the big Parco Naturale del Ticino, along the Ticino river, an ideal place for those looking for a quiet and natural resort.

**N.B.:** While walking along the Ticino river, you will probably see some big animals with long tails sleeping or swimming near the bank. Don't be afraid: they are harmless animals called nutrias. Unlike the common belief, nutrias are not rats and have nothing to do with them: they are the South American relatives of the beaver. They are herbivores and are neither dangerous nor unsafe for the human beings. There are quite a few nutrias in Pavia because in the past their fur was used by the local fur industries.

Surrounded by the countryside and old *cascine* (the traditional countryside house in Lombardy), a few kilometres south from Pavia we can find the picturesque hills of the Oltrepò. The hills that are near the river Po, are known for their castles, woods and vineyards of bonarda, oltrepo, riesling italico, pinot nero, buttafuoco, sangue di giuda and famous sparkling wines. In the mountainous zones (south and east of the province) there are also some famous spa resorts like Salice Terme, Miradolo and Rivanazzano.

# 9. Useful telephone numbers

Emergency numbers	
Police	113
Carabinieri	112
First Aid	118
Fire Brigade	115
Red Cross	0382 574127
Green Cross	0382 527777
EDiSU	0382 305011
Sportello Stranieri UNIPV	0382 22392/ 27742/ 29218/ 29275
Sportello Stranieri Comune	0382 399527
CUS	0382 526209
Welcome Point	0382 984225 (Spanish)
	0382 984018 (Chinese)
	0382 984021 (English, French, Arabic)
Carabinieri	0382 22145
Polizia Municipale	0382 33862
Polizia Ferroviaria	0382 539370
Questura di Pavia	0382 512525
Agenzia delle Entrate	0382 375711
ASL	0382 4311/ 4321
INA Assitalia	0382 23021
Centro Assistenza Studenti	0382 539393
U.P.P.I.	0382 304593
Post office	0382 392230

### 10. Useful links

#### **University**

University of Pavia: <u>http://www.unipv.eu</u> Languages Centre: <u>http://www-1.unipv.it/ateneolingue/</u> C.U.S. (sports): <u>http://cus.unipv.it/</u> S.A.I.S.D.: <u>http://saisd.unipv.it/</u> Shop Up: <u>http://www-1.unipv.it/shop-up/it/index.php</u>

#### **Institutions**

Pavia Municipality: <u>http://www.comune.pv.it</u> Province of Pavia: <u>http://www.provincia.pv.it</u> Lombardy Region: <u>http://www.regione.lombardia.it</u> Agenzia delle Entrate: <u>http://www.agenziaentrate.it</u> Questura: <u>http://questure.poliziadistato.it/Pavia</u>

#### **Ministries**

Internal Affairs: <u>http://www.interno.it/mininterno/export/sites/default/it/temi/immigrazione/</u> MAE (Foreign Affairs): <u>http://www.esteri.it/MAE/IT</u> MIUR (University): <u>http://www.miur.it/0002Univer/0023Studen/0059Studen/index\_cf2.htm</u>

#### Livinig in Pavia

Milan Airports: http://www.sea-aeroportimilano.it/it/ Banks: http://www.abi.cab.banche.meglio.it/banche-comune.htm?q=pavia Hospitals: http://www.ospedali.pavia.it/aopavia/ Farmacies: http://www.ospedali.pavia.it/webasl/farmacie2009.nsf/FVPavia?OpenForm LINE (buses): http://www.lineservizi.it Poste Italianehttp://www.poste.it/ Railway: http://www.ferroviedellostato.it/

#### Fun and free time

Cinemas: <u>http://www.cinemapavia.it</u> Miapavia: <u>http://www.miapavia.com/</u> Theatre: <u>http://www.teatrofraschini.it</u> Tourism in Pavia: <u>http://www.provincia.pv.it/provinciapv/brick/turismo</u>

#### Media (TV, newspapers...)

La Provincia Pavese: <u>http://laprovinciapavese.gelocal.it</u> La Repubblica: <u>http://www.repubblica.it</u> Corriere della Sera: <u>http://www.corriere.it</u> Telepaviaweb: <u>http://www.telepaviaweb.tv/portale/index.php</u>

11.Short	glossary
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ITALIAN	ENGLISH	ITALIAN	ENGLISH		
Aereo	Airplane	Libro	Book		
Aiuto	Help	Mangiare	To eat		
Affitare	To rent	Marca da bollo	Revenue stamp		
Arrivederci	Bye/ Goodbye	Medico	Doctor		
Ascensore	Elevator /Lift	Mensa	Canteen		
Assicurazione	Insurance	Metro	Metro/Underground		
Aula	Classroom	Montagna	Mountain		
Autostrada	Highway	Multa	a fine (i.e. parking)		
Bacheca	Bulletin board	Negozio	Shop		
Bagno	Bathroom	Ospedale	Hospital		
Benvenuto	Welcome	Parcheggio	Parking		
Bere	To drink	Permesso di soggiorno	Stay permit		
Buongiorno	Good morning	Pranzo	Lunch		
Buona sera	Good afternoon	Polizia	State police		
Buona notte	Good night	Posta	Post office		
Biblioteca	Library	Residenza	Residence		
Biglietto	Ticket	Ristorante	Restaurant		
Calcio	Football/Soccer	Sala	Room		
Carabinieri	Police (a sort of Military Police)	Scala	Staircase		
Centro Linguistico	Language Center	Sciopero	Strike		
Centro Storico	Historical city center	Spiaggia	Beach		
Cellulare	Mobile phone	Quaderno	Notebook		
Cena	Dinner	Questura	Police central station		
Chiesa	Church	Studiare	To study		
Chiosco	Kiosk	Tabacchi	Tobacconist*		
Ciao	Hi/Hello - Bye	Tintoria	Dry cleaners		
Colazione	Breakfast	Telefono	Telephone		
Comprare	To buy	Tessera	Card		
Dogana	Customs	Treno	Train		
Entrata	Entrance	Segreteria studenti	Student office (enrolment in single courses)		
Farmacia	Pharmacy/Drug Store	Ufficio Amministrazione	Financial Office		
Gelateria	Ice cream store	Zanzare	Mosquitos		
Libreria	Bookstore	Zona	Area		

\*(a store where you can buy also a Marca da Bollo, Bus Tickets, Stamps and Cigarettes)







# 12. LAW AND NEUROSCIENCE WINTER SCHOOL INFORMATION

#### **12.1 GENERAL INFORMATION**

In their everyday practice, lawyers need to face situations that are multidisciplinary by definition, such as evaluating scientific elements in a case they are working for, or finding the best scientific experts to consult. Recently, the use of neuroscientific and advanced technological tools in the legal setting has been increasing. The reaction within the legal community sometimes is in terms of strong faith in scientific evidence and, other times, is based on diffident distrust. Both approaches, however, can lead to an improper use of such tools when they are not supported by an actual knowledge and understanding of these techniques.

The Law & Neuroscience Winter School is a school for non-scientists organized by the European Center for Law, Science and New Technologies, University of Pavia, in cooperation with the European Association for Neuroscience and Law (EANL).

Courses are focused on Neuroscience, Psychiatry and Genetics (basic scientific information) and on their intersection with the Law, from a comparative perspective. The school is directed to graduate/master-degree students and PhD Students. The objective of this school is to provide proper information about the increasingly advanced neuroscientific findings and techniques, and to give students the chance to study how neuroscience impacts on different legal systems and how the philosophical debate about free will and responsibility has been influenced by its recent advancements. The project is co-financed by the European Commission within LLP Programme, Erasmus IP.

#### **12.2 PARTNER INSTITUTIONS**

University of Pavia, Research Center ECLT (Italy) - <u>http://www.unipv-lawtech.eu</u> Rheinische Friedrich-Wilhelms-Universitaet Bonn (Germany) - <u>http://www3.uni-bonn.de/</u> University of the West of England, Bristol (UK) - <u>http://www.uwe.ac.uk/</u> Université de Liège (Belgium) - <u>http://www.ulg.ac.be/cms/c\_5000/accueil</u> Universidad Complutense de Madrid (Spain) - <u>http://www.ucm.es/</u> Radboud Universiteit Nijmegen (The Netherlands) - <u>http://www.ru.nl/</u>

### **12.3 FACULTY MEMBERS - (ALPHABETICAL ORDER)**

**Sara Azzini** graduated in Law from the University of Pavia presenting the final thesis about the Medical Assisted Reproduction in Italy. She was trainee attorney since October 2008, and she is now a qualified lawyer in Italy. She attended the Postgraduate School in Law at the University of Pavia and Bocconi University, Milan. She cooperates with the European Center for Law, Science and New Technologies, ECLT, University of Pavia). In June 2008, she was appointed Teaching Fellow (course in Science and Law – Chair: Professor Amedeo Santosuosso) and from July 2008 to July 2011 she was Scholarship Fellow of the I.R.C.C.S. Foundation – Policlinico San Matteo. Her current research deals with the field of law sources and critical decisions in medicine.

**Marina Boccardi** achieved her degree in Experimental Psychology in Padua (Italy), and PhD in Neuroscience in Kuopio (Finland). From 1997, for over 10 years she worked in the neuropsychological rehabilitation of patients with moderate-severe Alzheimer's disease, setting and divulgating the approach of detecting and using alternative psychobiological routs, spared by the disease, for a fruitful rehabilitation also in severe patients. As to Alzheimer's disease, she is currently coordinating the standardization of the measurement of hippocampal atrophy from magnetic resonance images - a recognized biomarker for the

disease – within a large international project involving the expert centers in Europe and USA. From 2000 she has been working as a researcher in Neuroscience, specifically in the use of advanced neuroimaging algorithms for the examination of psychobiological issues from magnetic resonance images. Her interest is in the psychobiological correlates of adaptive behaviour, and in the role of the limbic system in disorders accompanied by abnormal personality and behaviour. Her first studies of frontotemporal dementia (a degenerative cause of abnormal personality change and behaviour) continued in the studies of psychopathy (a congenital condition associated with disturbed personality and behaviour), and are reported in publications on international journals of neuroscience. She is a member of the European Association for Neuroscience and Law, and teaches in Italian schools of Juridical Psychology.

**Chiara Boscarato** graduated in Law in 2009 from the University of Pavia, Italy. She is now a Ph.D. student in Civil Law at the Department of Private Law, Roman Law and European legal culture at the University of Pavia. Her research activity is focused on interaction between new technologies and the law, and in particular on the implications of new advancement of in robotics, in strict cooperation with the European Center for Law, Science and New Technologies (ECLT), University of Pavia.

**Barbara Bottalico** is a qualified Italian lawyer and a PhD Candidate at the Doctoral School of Comparative and European Legal Studies, University of Trento, Italy. During the Academic Year 2009/2010, she taught the 20-hour Seminar "New Dimensions of Individual's Liberties" at the University of Milan, Faculty of Law. In 2009, she spent one month at King's College Law School in London (UK) as Visiting Scholar. In 2010, she received a scholarship from the MacArthur Foundation to participate in the Penn Neuroscience Boot Camp, an intensive summer school organized by the Center for Neuroscience and Society, University of Pennsylvania, Philadelphia (USA), From February 2011 to December 2011 she was Visiting Scholar at Brooklyn Law School in New York, USA. Since January 2009, Barbara Bottalico has been a Scholarship Fellow at the European Center for Law, Science and New Technologies ECLT, University of Pavia. Her research interests are in the field of Law and New Technologies, with a particular focus on the impact of Neuroscience on the Law, from a comparative perspective. Her doctoral project is focused on the introduction of neuroscientific evidence in Italian and US criminal proceedings.

Gabriella Bottini is full professor of Psychobiology and Neuropsychology at the Psychology Department of Pavia University, and director of the Cognitive Neuropsychology Center at the Niguarda Ca' Granda Hospital of Milan, Italy. She is a PhD in Neurological Science (1991), Medical Doctor (1982) and Neurological Consultant (1986). Gabriella Bottini attended the Clinique Universitaire - Neuropsichiatrique Bel Air of Geneve (Switzerland) as an internal student. She spent two years for research on normal subjects and patients at the Medical Research Council Positron Emission Tomography Cyclotron Unit - Hammersmith Hospital of London and attended the Royal Postgraduate Medical School. She has been Neurologist Assistant (1990-1992) and Aid Neurologist (1994-2000) at the Neurological Science Department of Niguarda Ca' Granda Hospital of Milan, Italy. She is Honorary Senior Lecturer at the Institute of Neurology of London. She coordinates the study group of Neuropsychology of the Lega Italiana contro l'Epilessia (LICE) and of the study group of Neuroscience and Law of the Società Italiana Neurologia Demenze (SINDEM). Membership: International Neuropsychological Symposium (INS), Società Italiana di Neuropsicologia (SINP), European Neuropsychological Society (ENS), Società Italiana Neurologia Demenze (SINDEM), Lega Italiana contro l'Epilessia (LICE).

Alfredo Calcedo Barba is Profesor Titular de Psiquiatría (tenured professor), Medical School, Universidad Complutense de Madrid. He is in charge of undergraduate teaching at the Universidad Complutense Medical School, at the Hospital Gregorio Marañón, Director of the Master Course on Forensic Psychiatry of the Universidad Complutense de Madrid since 2003, and Head of the Mental Health Unit devoted the treatment of victims of intimate partner violence and their children. Dr. Calcedo-Barba has participated in research related to the violent behavior of schizophrenic patients, and his works have been published such journals as Schizophrenia Bulletin, the International Journal of Psychiatry and Law, the International Journal of Geriatric Psychiatry, World Psychiatry, General Hospital Psychiatry, Current Opinion in Psychiatry. He is very interested in the ethical implications of the practice of Psychiatry both in clinical and forensic settings.

**Stefano F. Cappa** received his M.D. at the University of Milan, in which he completed his neurology training. He has held assistant professor and associate professor positions in Neurology and Neurological Rehabilitation at the University of Brescia. Since 1999 he is Professor of Cognitive Neuroscience at the Vita Salute S. Raffaele University and Director of the Neurology Department of S. Raffaele Turro Hospital, Milano, Italy. He has spent research periods at Boston University, at the Massachusetts Institute of Technology, at University of California San Diego, at the Medical Research Council Cyclotron Unit of Hammersmith Hospital in London and at the Max Planck Institute for Cognitive Neuroscience in Leipzig. His main research interests are the cerebral organization of language and the application of functional imaging methods to the study of cognitive function (in particular, of semantic memory and social cognition).

**Franco Caroleo** graduated in Law in 2009 from the University of Pavia, Italy. In August 2008 he was an intern at the Criminal Tribunal for Rwanda (Arusha, Tanzania), and from September to December 2008 he was Visiting Student at the Bond University (Australia). In 2009 he was also an Intern at the Italian Presidency of the Council of Ministers – Family Policy Department. In 2010 he graduated with a Social Sciences Diploma from the Istituto Universitario degli Studi Superiori of Pavia, presenting a final thesis on the human rights' transnational dimension. He worked as legal practitioner at the Rome Municipality Legal Office and as law clerk in the Civil Court of Rome. He attended the Postgraduate School in Law from the University of Rome. He is now a PhD Student at the Doctoral School of Private Law, Roman European legal culture at the University of Pavia, Italy and he cooperates with the European Centre for Law, Science and New Technologies (ECLT) in the field of law and technologies.

**Paul Catley** is the Head of the Department of Law at the University of the West of England, UK. He currently teaches Criminal Law, Sexuality and the Law and Constitutional and Administrative Law. His interest in Law and Neuroscience focuses on the use of neuroscience to assess risk, not only within the criminal justice system, but also in areas such as employment law. He is also interested in what neuroscience can add to our understanding of capacity and responsibility. He recently jointly wrote with Lisa Claydon the chapter on English law for Tade Spranger's forthcoming book on comparative approaches to Neurolaw around the world.

**Lisa Claydon** is an Associate Head of Department and Reader in Law in the Department of Law at the University of the West of England: Bristol. She has been researching neuroscience and criminal responsibility since 1998. She lectures and leads the criminal law course at the University of the West of England and writes and gives keynote lectures in the areas of criminal responsibility, mental condition defences and the interface between law and neuroscience. In 2010/11 she was a member of the English Royal

Society working group on Neuroscience and Law and contributed to the published findings of that group <u>http://royalsociety.org/brainwaves-law/</u>. She has also been contributing to the debate with the English Law Commission on the reform of the defense of insanity in England and Wales.

**Roberto Colombo** received the Dr. Eng. Degree in electrical engineering from the "Politecnico di Milano", Italy in 1980. Since 1981 he has worked with the "Salvatore Maugeri" Foundation, IRCCS, Rehabilitation Institutes of Veruno and Pavia where he is head of the Bioengineering Service. His research interests include: robot-aided neuro-rehabilitation, muscle tone and spasticity evaluation, muscle force and fatigue assessment, speech production mechanisms assessment, respiratory mechanics assessment. Teacher in several national and international courses in the field of neuro-rehabilitation, he is the author of over 60 papers and the co-editor of one book on the subject of speech production mechanisms.

Katy De Kogel is a senior researcher at the Research and Documentation Centre (WODC) of the Ministry of Security and Justice in the Netherlands. She studied psychology and has a PhD in behavioral biology. She worked several years as a researcher at the department of child psychiatry at the Medical Centre of the University of Utrecht and in Forensic Psychiatric Institution 'De Kijvelanden'. Since 2000 she works at the WODC. Her research includes several projects in forensic psychiatry, such as quality of life in long stay forensic patients, long-term monitoring of released offenders, and international perspectives in forensic care. She is executive coordinator of the focus area Social Safety of the research programme 'Brain & Cognition – Social Innovation in Health Care, Education and Safety' hosted by the National Science Foundation of the Netherlands (NWO). She conducts and supervises research projects on neuropsychological and physiological factors and responsiveness of detainees in a cognitive behavioral intervention, and on the role of neurobiological information in decision making in criminal cases. From 2008 until 2011 she was a member of the executive committee of the Dutch Society for Criminology.

**Pim Haselager** is a principal investigator at the Donders Institute for Brain, Cognition and Behaviour and the head of the educational program of Artificial Intelligence (AI), both at the Radboud University, Nijmegen, The Netherlands. He works within the philosophy of mind, with a focus on AI and Cognitive Neuroscience (CNS). He is particularly interested in the integration of empirical work (i.e. experimentation, computational modeling, and robotics) with philosophical issues regarding knowledge and intelligent behavior. He investigates the ethical and societal implications of research in, and the ensuing technologies (e.g. Brain-Computer Interfacing) of, AI and CNS. He publishes in journals such as Cognitive Science, Cognition, Neuroethics, Social Neuroscience, Neural Networks, and Philosophical Psychology.

**Daniela Ovadia** is a science journalist with a strong background in medicine and neuroscience. She collaborates with the Center for cognitive neuropsychology at Niguarda Hospital in Milan (directed by prof. Gabriella Bottini) as a science officer and supervisor. She teaches science journalism at University of Milan and is a member of the board of the professional association Science writers in Italy. She has been conducting research and communication projects on neuroscience and its impact on society (she recently published on "Frontiers in Integrative Neuroscience" a paper on the way media depicted deep brain stimulation techniques and the ethical issues related to their use). From 2008 to 2011 she participated in the "Brain in dialogue" project, funded by the European Commission to enhance interdisciplinary dialogue between neuroscientists,

media, lawyers and patients. In June 2011 she organized and chaired the neuroethical session at the World Conference of Science Journalists in Doha, Qatar. She is a member of the International Neuroethics Society. She recently received a fellowship by the University of Pennsylvania to participate in the multidisciplinary professional summer course "Neuroscience and Society" directed by prof. Martha Farah.

**Carlo Alberto Redi** is full Professor of Zoology at the University of Pavia and head of the section for Developmental Biology at the Department of Animal Biology. A chemist by training (1968) he graduated in Biology (1972) from the University of Pavia as an *alumnus* of Collegio Ghislieri. He started his university career as Researcher (1973 – 1975) and Associated Professor (1975 – 1989) at the Institute of Histology and Embryology, University of Pavia, where he progressed to become full Professor of Zoology and Developmental Biology (1990). He has been Coordinator of research grants from NATO, EC, Italian MURST, Italian CNR, Fondazione Lombardia per l'Ambiente, Provincia di Pavia, and private foundations (CARIPLO, Cassa di Risparmio delle Provincie di Piacenza e Vigevano, Olympus Foundation Science for Life, Millipore). He has also been acting as referee for the following international Journals: Journal of Experimental Zoology; Biological Journal of the Linnean Society; Chromosome Research; Cytogenetics and Cell Genetics; Experimental Cell Research. Carlo Alberto Redi is one of the founders of the European Center for Law Science and New Technologies, University of Pavia.

Giacomo Rizzolatti is Professor of Human Physiology at the Università degli studi di Parma, where he is the Director of the Department of Neurosciences. Formerly President of the European Brain Behavior Society and the Italian Society for Neuroscience, as well as member of the European Medical Research Council, Professor Rizzolatti has, for several years, directed the European Training Program in Brain and Behaviour Research (ETP) sponsored by the European Science Foundation. He is member of Academia Europaea and of Accademia dei Lincei as well as Honorary Foreign Member of the American Academy of Arts and Sciences. He was recently elected Associé étranger of the Institut de France's Académie des Sciences. Among Professor Rizzolatti's major awards are the Golgi Prize for Physiology, the George Miller Award of the Cognitive Neuroscience Society, the Accademia dei Lincei's Feltrinelli Prize for Medicine and the Herlitzka Prize for Physiology awarded by the Accademia delle Scienze di Torino. Since the early eighties, Professor Rizzolatti has been recording the activity of nerve cells in the brain specialised for the control of hand actions such as grabbing objects or picking items up. In 1996, this resulted in the discovery of "Mirror Neurons" that is neurons which fire or become active both when one performs such hand actions as well as when one observes them in another. Some scientists consider "Mirror Neurons" as one of the most important findings in the last decade. Their potential importance lies with the fact that they may be the basis through which we are able to understand the intentions of others, acquire language and share feelings.

**Caroline Rodiger** studied law at the University of Bonn (Germany) and specialized in International, European and Comparative Law at the University of Strasbourg (France). She took her First Judicial State Examination at the Higher Regional Court Cologne in May 2009 and began her Ph.D. specializing in Neurolaw (Neuroscience and Law). Caroline is involved as a research associate both in the project "Neuroscience And Norms: Ethical and Legal Aspects of Norms in Neuroimaging" and in a forthcoming project dealing with "Neuroscience, Media and Legislation" (funded by the Federal Ministry of Education and Research); she is also a member of the Research Group "Norm-Setting in the Modern Life Sciences" at the Institute of Science and Ethics, University of Bonn. She

stayed at the Health Law Institute, University of Alberta (Canada) for research purposes in 2009 and 2011. Her research interests lie in investigating the legal aspects of Neurosciences and Modern Life Sciences.

Amedeo Santosuosso is Professor of Law at the University of Pavia. He also teaches Law at the University of Milan and serves as Judge at the Court of Appeal of Milan. He is President of the Interdepartmental Centre of the University of Pavia European Centre for Law, Science and New Technologies. Since 1997 he has cooperated with the Scientific Committee of the Italian Consiglio Superiore della Magistratura (The Supreme Council of the Judiciary). He is author of the project on "Education in Bioethics", approved by the Consiglio Superiore della Magistratura (November 1998). Santosuosso has been member of the Commission on Hydration and Nutrition in PVS patients and of the Commission on Transplants from living donors, both set up by the Minister of Health in 2000 and 2001. He is member of the Ministerial Commission on End of Life Decisions (Ministry of Health). Santosuosso is author of Corpo e libertà. Una storia tra diritto e scienza, Raffaello Cortina Editore, Milano 2001; Bioethical Matters and the Courts: do Judges Make Law?, Notizie di Politeia, n.65/2002 and main author of the edition, Science, Law and the Courts in Europe, Ibis, Como-Pavia (I), 2004. He is also author of several articles published in international journals, on law and bioethics. Santosuosso is currently working on the worldwide law-making process in the field of scientific applications on human beings.

**Anna Sedda** graduated with a M.Sc. in Neuropsychology-Cognitive Psychology from the University of Pavia. During her M.Sc. she worked with Prof. Gabriella Bottini in her Laboratory of Cognitive Neuropsychology, where she participated in neuropsychological research on facial expression recognition in epilepsy patients. During her PhD (2006-2009) at the Department of Psychology at the University of Pavia she spent a year at the Department of Psychology at the University of Western Ontario, London, Canada (2008-2009) working with Prof. Melvyn A. Goodale. In his Laboratory of Action and Perception, she became interested in multisensory information integration during human precision movements and started to learn functional magnetic resonance imaging (fMRI) techniques. Currently, Dr Sedda is a Post Doc fellow at the Department of Psychology, University of Pavia (2010-present), working with Prof Gabriella Bottini and her team. She is studying emotional processes in epilepsy and unilateral spatial neglect. Furthermore, in collaboration with the Department of Computer Science, University of Milan, she is developing new rehabilitation paradigms based on virtual reality platforms and on multisensory processing.

Anne Lise Sibony is professor of European Law at the University of Liège (Belgium). She read law and economics in Paris, graduated from the Ecole Normale Supérieure (Paris) and holds a Master's degree in Regulation from the London School of Economics. In her research, Anne-Lise has always been keen to analyse the interplay between law and other disciplines. She wrote her PhD on the judicial use of economic reasoning in competition law. Her main research interest lies in how (through which legal techniques) scientific knowledge may be used in the legal sphere. Anne-Lise's most recent research deals with how insights from social psychology may be used for interpretation and enforcement of EU consumer law on unfair practices.

**Tade Mathias Spranger** is Head of the interdisciplinary BMBF (German Ministry for Science and Education) research group "Norm-Setting in the Modern Life Sciences" at the Institute of Science and Ethics (IWE), Bonn; Associate Professor of Law at the Faculty of Law, University of Bonn; Visiting Professor at the University of São Paulo (2002) and at the University of Technology Sydney (Alexander von Humboldt Fellow, 2004-2005);

member, inter alia, of the School of Medicine's Ethics Committee (University of Bonn); consultant, inter alia, to the German Government, the European Commission, the UNESCO and the German Commission for UNESCO.

**Daniela Tiscornia** is Director of Research at the Institute of Legal Information Theory and Techniques (ITTIG), belonging to the Italian National Research Council (CNR), where she leads the Research Unit: "Legal ontologies and Legal Language Processing".

Her Research activity is in the area of ICT & LAW, with specific references to legal information processing, legal language analysis and in the application of AI techniques to the representation of legal knowledge. Current research interests deal with the application of Semantic Web tools to the legal domain and with the development of ontologybased models of legal knowledge. She has been acting as scientific coordinator or member of national and European projects, as:

- ICT4Law (Converging Technologies, project of the Piedmont Region, 20082011)
- Dalos (Drafting Legislation with Ontologybased Support, (eParticipation 20072008)
- Lois (Lexical Ontologies for Legal Information Sharing, eContent 20022004)
- ePSInet (ePublic Sector Information, eContent 2002)

She is currently participating to the European Project eCodex (Ejustice Communication via

Data exchange, ICT PSP 2010). She is Member of the Editorial Board of the International Journal Artificial Intelligence and Law, Amsterdam, Kluwer and Member of the Editorial Board of the International Review: Informatica e Diritto, Napoli, ESI.

**Dave Van Toor** studied Law (2003-2008) and Clinical Psychology (2005-2010) at the University of Nijmegen in the Netherlands. He obtained his LL.M. degree, specializing in Criminal Law, on a thesis about the differences between the position and the potential success of treatment of the mentally ill in criminal and civil health law. The primary Dutch legal scientific magazine (NJB) published a summary of his thesis in June 2008. He obtained his B.Sc. degree in September 2010 after concluding a study regarding the breach of the privilege of confidentiality in criminal cases by psychologists (the influence of the requesting authority (police, prosecutor, judge) and the gravity of the crime (theft, murder) on handing information to the justice department). Van Toor has been a lecturer and Ph.D. candidate since August 2008 at the University of Nijmegen, Faculty of Law. He teaches courses about Criminal Law and Criminal Procedural Law. The autonomous position of the suspect in Criminal Law is the subject of his dissertation. It focuses on problems regarding the position of the suspect that might rise when new criminal methods are introduced; such as Brain fingerprinting versus the privilege against self-incrimination and the right to remain silent.

#### **12.4 ADMITTED STUDENTS**

List of **international students** admitted to participate in the Law and Neuroscience Winter School

- Georgia-Martha Gkotsi Switzerland
- Alessia Farano Italy
- Laura Cabrera Australia and Switzerland
- Enrico Arona Italy

List of students enrolled in the University of Pavia (Italy)

Federico Faroldi

- Elena Sajno
- Sonia Caprini
- Alessia Ofredi
- Manuela Bossi

#### List of students from partner institutions:

- David Jablonka (UK)
- Edward Johnston (UK)
- Maria Nieves Martinez Francisco (Spain)
- Ascension Garcia Ruiz (Spain)
- Antonia Reitter (Germany)
- Marielen Seesing (Germany)
- Alena Jerrentrup (Germany)
- Anne Coenrard Pieter Peeters (The Netherlands)
- Laura Winkers (The Netherlands)
- Jakel Lieke (The Netherlands)
- Malou Noten (The Netherlands)
- Britt Oosterlee (The Netherlands)
- Simone Wevers (The Netherlands)

#### 12.5 WINTER SCHOOL LOCATIONS

#### **Courses Location**

University of Pavia, Faculty of Law, Room 6.

#### **Students Accomodation**

Hostel Santa Maria in Bethlem, Via Pasino degli Eustachi 7, Pavia - <u>https://sites.google.com/site/ostellosantamariainbetlem/home/servizi</u>

#### How to get the Hostel:

**From the Central Train station:** take the bus n. 21. go out in Bramante Parking Stop (2 stops). Take the bus n. 1 and go out in Dei Mille Pasino (3 stops).

**From the Hostel to the University:** Take N bus Bus and go out to "Strada Nuova Demetrio" Stop. The university is located in Corso Strada Nuova n. 65.

Bus hours Scheme: <a href="http://www.lineservizi.it/linee/urbane\_pavia.asp">http://www.lineservizi.it/linee/urbane\_pavia.asp</a>

#### Faculty Accommodation

Collegio Ghislieri, Piazza Ghislieri 4, Pavia - <u>http://www.ghislieri.it/</u> Collegio Santa Caterina da Siena, Via S. Martino, 17/B - 27100 Pavia -<u>http://santacaterina.unipv.it/index.php</u>

Collegio Giasone del Maino, Via Luino 4, Pavia - http://www.collegiodelmaino.tk/

International Incoming Student's Guide

#### 12.6 LAW AND NEUROSCIENCE WINTER SCHOOL 2012 PROGRAMME

#### 22 January 2012

Arrival of participants

#### 23 January 2012

9 am-10.45 am location: *Aula Foscolo* - University of Pavia **WELCOME SESSION** *Amedeo Santosuosso, Barbara Bottalico, Paul Cately, Lisa Claydon, Marina Boccardi e Carlo Alberto Redi* Students and teachers self-presentation and course overview

10.15 am - 11.00 am INTRODUCTION TO THE SCHOOL: SCIENCE AND LAW, NEUROSCIENCE AND LAW Amedeo Santosuosso, Paul Catley

#### 11,30 am - 12,00 am

**Opening Addresses:** Prof. A. Stella (Rector, University of Pavia), Prof. E. Dezza (Dean, Faculty of Law, University of Pavia), Prof. A. Belvedere (rector, Collegio Ghislieri di Pavia), Dr. G. Canzio (Chief Justice, Court of Appeal of Milan), Prof. S. Garagna (director, ECLT Research Center, University of Pavia)

12.00 am - 1 pm

Keynote Lecture "The mirror mechanism: A mechanism for understanding others" Giacomo Rizzolatti (University of Parma)

2.30 - 5.30 pm INTRODUCTION TO THE SCHOOL: NEUROSCIENCE Stefano Cappa

#### 24 January 2012

9.00 am - 10.45 am

Location: Aula 6 – Faculty of Law

#### INTRODUCTION TO THE SCHOOL: GENETICS AND SYNTHETIC BIOLOGY

#### Carlo Redi

A bird's eye view on the last decade's advances in genetics: a short presentation on how all the possible –omics meet cell biology today and Biology turns in a hard science from its historical and descriptive ontogenetic approach. The new conceptual paradigm of synthetic Biology.

#### 11.15 am – 1.00 pm

#### APPLICATIONS OF NEW TECHNOLOGIES TO REHABILITATION

#### Roberto Colombo

Given the rapid increase in the aging of the population and the further increase that is expected in coming years, an important problem that has to be faced is the corresponding increase in chronic illness, disabilities, and loss of functional independence endemic to the elderly. For this reason novel methods of rehabilitation and care management are urgently needed. The present session deals with Robot-assisted Neurorehabilitation, Virtual Reality, Wearable Devices and other emerging technologies providing potential benefits for many aspects of rehabilitation assessment, treatment and research.

#### 2.30 pm - 3.45 pm

# BRAIN IMAGING. THE METHODS: ANALYSIS OF BRAIN MORPHOLOGY (NEUROIMAGING TOOLS), AND THE ANALYSIS OF ITS RELATION TO THE INDIVIDUALS' BEHAVIOUR (STATISTICAL TOOLS).

#### Alfredo Calcedo Barba

The Brain Imaging – Methods section will provide an overview of the techniques allowing to explore in vivo the morphology of the brain, and of the statistical reasoning that allows to draw inferences about the relation between brain morphology, functioning, acquired and congenital disorders, and psychiatric conditions. The need of such an overview relates not only to the comprehension of the neuroscientific findings per se, but also to the understanding of the range of applicability of such findings in different areas of interest, in this case in the juridical ground. Limitations of both methodological aspects need to be made clear and explicit, in order to identify possible solutions to overcome them at the practical level of their possible use behind the Courts.

#### 4.15 am - 5.30 pm

#### BRAIN IMAGING. SCIENTIFIC RESULTS

#### Alfredo Calcedo Barba, Marina Boccardi

Neuroimaging results are used behind the Courts based on the existence of experimental data showing that some cerebral features detectable from brain imaging can be associated to specific conditions, relevant in the evaluation of aspects like criminal responsibility. Brain trauma, degeneration, and congenital malformations are all associated to clear anatomical features, but the meaning of this features and of these association, and of their relation to the individual's behaviour are very different. Nonetheless, due to the fact that these conditions are all associated to positive findings at neuroimaging, such findings tend to be homogeneously treated as supportive evidence for a reduced responsibility.

Moreover, the association of neuroimaging findings with psychiatric conditions are much more controversial. Under this respect, the requirements for the use of neuroimaging findings behind the Courts (Frye and Daubert standards) show an increased number of facets to be considered for adequate use. The concepts of "added value", "sensitivity" and "specificity", as also adopted in translational research in the medical field, can be equally imported at the juridical level. Under this respect research in translational medicine offers a precious model for the interdisciplinary field of Neuro-Law. This section will be illustrated with the use of examples from the available scientific literature on neuroimaging.

#### 25 January 2012

9.00 am - 10.45 am

#### HANDS-ON-LAB with Marina Boccardi and Anna Sedda

Students will attend a number of experiments involving behavioural (neuropsychological) and instrumental investigations (TMS, Physiological manipulations). The aim is to provide knowledge on the principal methodological approaches implied in Neuropsychology and information on the most used cognitive tests for forensic inquires. Hands on Lab activities will be performed at the University of Pavia.

#### 11.15 am – 1.00 pm

#### THE LAW AND NEUROSCIENCE: CIVIL-LAW AND COMMON-LAW POINTS OF VIEW

#### Tade M. Spranger, Caroline Roediger, Lisa Claydon

In Germany, opinions are highly divided with a view to the legal framework of neuroscientific research, as this research area has not yet been covered by any national code. Notably incidental findings in brain imaging research pose a big challenge for both the researcher and the participant. They might cause psychological distress, social stigma and severe financial burdens on the participant's side and might confront the researcher with civil claims for damages or even render himself liable to prosecution. Another important issue in neurolaw is that of neuro-technical application possibilities. Even though the use of fMRI scanners as lie detectors in courts and as brain-computer interfaces for disabled persons are not (yet) a daily occurrence in Germany, it is an important time to consider the constitutional implications.

In the second part of the class, the English common-law legal system will be presented, with a particular attention to hot issues related to law and neuroscience. The Royal Society of Science working team has indeed identified the main issues related to neuroscience, which are relevant to the law. These are: Memory, Risk, Pain, Mental Conditions which may affect responsibility, and the use of neuroscientific techniques to predict future criminal behaviour.

#### 2.30 pm – 3.45 pm

## LEGAL LAB: PRESENTATION AND DISCUSSION OF CASE LAW ON NEUROIMAGING

Marina Boccardi, Lisa Claydon (common law), Tade Spranger (civil law).

Presentation and discussion of case-law related to the Use of Neuroimaging evidence before the Courts.

The limitations, requirements and reasoning gaps, clear at the light of the concepts of the above issues, will be made clear by considering concrete and published examples of the use of neuroimaging findings behind the Courts, in the European and American contexts. This section will illustrate such cases, and analyze all implications that often lead to an erroneous or at least limited comprehension of such findings. The consequence of the lack of an explicit illustration and comprehension of these implications leads to both the extremes of adopting, with excessive faith, the neuroimaging data as indexes of very concrete diagnoses and conditions, and of excessive wariness towards any scientific findings. The objective of this course is indeed to clear up all of the methodological and logical steps that would allow to consider the neuroscientific findings in an objective and reasonable way, well integrated in the target field, without falling in both enthusiastic adoption or prejudicial distrust.

Lisa Claydon will present an examination of English case law to demonstrate how neuroscientific evidence is used on appeal to decide issues in criminal cases. Some reference will be made to American research on the use of neuroscientific evidence in insanity cases. Tade Spranger will present some relevant German case-law.

Each student selects then a case, not necessarily from UK or German legal systems, and prepare on it his/her work to be presented in Day 10. Preparation includes: deep understanding of scientific background, legal reasoning, national linguistic-conceptual choices, ratio decidendi (holding), preparation of the case as a part of a multilingual database. A special attention is reserved to science-law and language-ICT interfacing.

#### 4.15 pm - 5.30 pm

#### HANDS-ON-LAB (BRAIN IMAGING) with Marina Boccardi and Anna Sedda

In the laboratory section, participants will be prompted to express the typical questions that they would pose to experts for answering to legal issues, and also to provide the kind of answers that they expect to receive for considering their question as satisfactorily

answered. Logical gaps at this level, plausibly caused by limited experience of judges in the neurological and psychiatric fields, as well as of the appointed experts in both the juridical and methodological field, may lead judges to use improperly scientific data, and also may lead experts to provide involuntarily biased information.

In this laboratory, participants will also be guided to the consideration of the methodological aspects that both scientists and operators in the social fields should be aware of: the difference in the levels of complexity among fields of investigation of the human mind and brain. Our cognitive system imposes a knowledge method that can investigate a limited number of aspects at each time, and the whole scientific armamentarium is, of course, strongly influenced by this limitation. This lead to a knowledge system ordered in a hierarchical manner, where the social and juridical levels, at which responsibility is evaluated, are the farest from the biological level, that we are considering with the genetic or neuroimaging analyses. This means that the field of Neuro-Law needs to bring about a thorough consideration of the loss and gain of information when doing each step across such levels of complexity, together with a proper "translation" of concepts, in fields so far that the same words have by no means the same meaning within each of them. Active participation of attendees will be precious for the concrete comprehension of these crucial aspects.

In the perspective of allowing participants to experience the use of neuroimaging tools, pc will be predisposed for allowing student to segment specific regions of interest in the brain, or to carry out comparison experiments.

#### 26 January 2012

9.00 am - 10.45 am

#### PSYCHIATRY IN COURT

#### Alfredo Calcedo Barba

There will be a presentation of the limitations of the neuroscientific evidence when it is intended to be used by expert witnesses in a court of law. During the presentation it will be challenged the "neuroradical" approach and it will be argued that, despite the enormous amount of research that we have obtained, it is impossible to predict human intentional behaviour.

#### 11.15 am - 1.00 pm

#### SCIENTIFIC RESEARCH AND THE LAW

#### Carlo Alberto Redi

In the everyday lab working life scientists face restrictions and tighten regulations that slow down their potentiality to advance the knowledge in several topics that clearly affect human health and environmental quality, just to tell about two hot topics. The needed regulations in fact strictly apply just to the public lab while under protection lab can work without limitations. This situation is becoming a boomerang: instead to protect the society, these regulations are lengthening the time by which lab results can reach the bed side or improve the environmental quality. Some of the possible, present and future, clashes between law duties and science needs will be presented.

#### 2.15 pm – 5.30 pm

#### LEGAL LAB

#### Lisa Claydon & Paul Catley

Each student selects a case and prepare on it his/her work to be presented in Day 10. Preparation includes: deep understanding of scientific background, legal reasoning,

national linguistic-conceptual choices, "ratio decidendi" (holding), preparation of the case as a part of a multilingual database.

#### 27 January 2012

9.00 am - 10.45 am

## NEUROSCIENCE&LAW DATABASING: SIMILAR PROBLEMS AND DIFFERENT SOLUTIONS

#### Daniela Tiscornia, Amedeo Santosuosso

The concept of an international archive of cases and materials on neuroscience and the law is presented. The crucial point is the contrast between the need to deal with the durable differences of legal languages and, on the other side, the necessity not to loose the advantages that international and transnational interaction offers within EU and worldwide. ICT can offer working tools within a dynamic, adaptive and ever-evolving context.

Technical alternatives and methodological pitfalls of constructing the database will be outlined.

#### 11.15 am - 1.00 pm

#### NEUROSCIENCE&LAW DATABASING: THE UK AND NL EXPERIENCE

#### Paul Catley, Lisa Claydon, Katy De Kogel

The session will look at one method for analyzing large numbers of cases. Based on research initially conducted by Nita Farahany in the United States the session will consider how that research was mirrored in England and in the Netherlands.

Knowledge about biological influences on antisocial behaviour has grown in the last decades. Research concentrates roughly on two areas: Firstly, in offenders with callous, premeditated antisocial behaviour, deficits are found in sensitivity to the suffering of others, and to moral emotions such as guilt and remorse, and their physiological stress system shows less reactivity to social stressors such as punishment. Secondly, offenders with impulsive aggressive behaviour show deficits in so-called 'executive functions' such as impulse control, planning ahead, or the ability to adapt their reactions to novel information. The deficits mentioned are ascribed to dysfunctions of a brain circuit for emotion regulation and social decision-making. Structures and connections between them presumed to be involved are 'emotional parts' of the brain (e.g. amygdale), and areas of the prefrontal cortex (PFC) known as 'rational parts' of the brain.

To what extent does this neurobiological work about antisocial behavior already find its way into criminal cases? An inventory of UK and Dutch case law will be presented, in which neurobiological or behavioural genetic information was introduced. The methodology and methodological pitfalls of constructing the database will be outlined.

The presentation will further address the following questions. Which types of offences are charged, and which penalties or measures are imposed in these cases? In which phase of the criminal case is the neurobiological information introduced and for which legal queries? It will be investigated for instance if neurobiological information is considered in assessment and treatment of antisocial behaviour, in judgment of criminal responsibility, or in assessment of criminal recidivism risk. A question that also will be addressed is which checks and balances the Dutch legal system provides for evaluation of information provided by (neuro)experts.

2.30 pm - 3.45 pm NEUROSCIENCE&LAW DATABASING: THE EANL AND ALST MULTILINGUAL APPROACH

#### Daniela Tiscornia, Roberto Zanetti, Sara Azzini

In order to facilitate the understanding of technical aspects, a short introduction to data management and information retrieval will be firstly provided: basic concepts underlining the building up of digital information systems, such as data formats, documents tagging, searching strategies and conceptual retrieval will be introduced and explained. The focus of this section will be on the challenges linked to the access to multilingual information and on the presentation of different approaches to the building up of linguistic tools (multilingual thesauri) able to drive the cross lingual retrieval of legal cases, respecting the conceptual differences among legal systems. Practical examples of the building process will be provided and the differences in methodological approaches between EANL and ALST will be out-lighted.

#### 4.15 pm – 5.30 pm

LEGAL LAB (ICT AND NEURO&LAW DATABASING) with Roberto Zanetti and Sara Azzini

In this legal lab case law in the field of neuroscience is analyzed and processed according to the methodology explained in the previous session.

#### 28 January 2012

Free time. Students and teachers will have the possibility to visit the city of Pavia.

#### 29 January 2012

Free time. Students and teachers will have the possibility to visit the city of Milan.

#### 30 January 2012

9.00 am – 10.45 am

### COGNITIVE NEUROSCIENCE. THE ROLE OF EMOTION AND MEMORY IN DETERMINING HUMAN BEHAVIOURS

#### Gabriella Bottini, Anna Sedda

The aim of this seminar is to frame the topic of emotion not basing on psychodynamic theories and interpretations rather than providing information on the anatomophysiological substrates of the emotional system in the human brain.

#### 11.15 am - 1.00 pm

#### COGNITIVE NEUROSCIENCE

#### Gabriella Bottini, Anna Sedda

Decision making, Free will and capability: the boundary between cognitive neuroscience and law. Definitions of: Neuropsychology, Pathological aspects in between neurology and psychiatry, Behavioural instruments to explore these comparative dominions. The concept of awareness and consciousness: what can be learned from cognitive neuroscience.

These topics deeply interest both, Law and Cognitive Neuroscience and frequently represent the main issues on which Lawyers ask practical explicative responses to Neuropsychologists and Neuroscientists in general. The aim of this seminar is providing notions on the physiological correlates of these complex cognitive components of the human behaviour. A number of neurological and psychiatric syndromes will also be presented as they are particularly emblematic in demonstrating impairments of these aspects with direct impact in Courts. The issues of awareness and consciousness interest many disciplines such as Philosophy, Psychology, Neuropsychology, Neurology, Psychiatry and Law. In the past decade researches on this topic have grown exponentially

considering also the use of instruments such as fMRI able to study the human brain "in vivo". Recent discoveries on the identification of the so-called spared cognitive reservoir in severe brain damaged patients have had a huge impact on the discussion about advanced health care directive.

### 2.30 pm - 3.45 pm

#### HOW DOES LAW ABSORB SCIENCE?

#### Anne-Lise Sibony

The use of Economics in Competition Law and of Psychology in Consumer Law.

#### 4.15 pm – 5.30 pm

#### **BREAKOUT SESSION**

(Group leaders: Anne-Lise Sibony, Barbara Bottalico, Dave Van Toor, Caroline Rodiger) Analysis of recent academic articles selected among the juridical literatures concerning Law & Neuroscience. Students will be divided in 4 smaller groups.

#### 31 January 2012

9.00 am - 10.45 am

# LIE DETECTION AND THE PRIVILEDGE AGAINST SELF-INCRIMINATION IN CRIMINAL LAW. A COMPARISON BETWEEN ITALY, US AND THE ECHR

#### Barbara Bottalico, Dave van Toor

The first question many scholars ask about lie-detection techniques is whether they are sufficiently reliable to be used. However, even if lie-detector technology does provide an accurate means of monitoring truthfulness and deceptiveness, how should it be used in the context of a criminal proceeding?

#### 11.15 am - 1.00 pm

LEGAL LAB (criminal law)

Lisa Claydon, Dave Van Toor

Each student selects a case and prepares on it his/her work to be presented in Day 10.

Preparation includes: deep understanding of scientific background, legal reasoning, national linguistic-conceptual choices, ratio decidendi (holding), preparation of the case as a part of a multilingual database. A special attention is reserved to science-law and language-ICT interfacing.

#### 2.15 pm - 3.45 pm

#### NEUROSCIENCE AND THE MEASUREMENT OF PAIN IN COURT.

#### Barbara Bottalico

The assessment of chronic pain is a highly unmet medical need, and a significant number of patients are not effectively treated with currently available therapies, particularly in chronic debilitating pain conditions such as neuropathic pain. Chronic pain is also the subject of a large and costly category of legal claims. Yet, the invisibility and subjectivity of pain have caused it to be a subject of as much philosophical and legal controversy on its significance. The most recent developments of neuroimaging are supposed to improve such situation. The possible implications for the law and at the same time the limitations of these techniques are analysed.

4.15 pm – 5.30 pm

#### LEGAL LAB (tort)

#### Amedeo Santosuosso, Paul Catley

Each student selects a case and prepares on it his/her work to be presented in Day 10.

Preparation includes: deep understanding of scientific background, legal reasoning, national linguistic-conceptual choices, *ratio decidendi* (holding), and preparation of the case as a part of a multilingual database. A special attention is reserved to science-law and language-ICT interfacing.

#### 1 February 2012

9.00 am - 10.45 am

#### BRAIN COMPUTER INTERFACING (BCI). APPLICATIONS AND CHALLENGES

#### Pim Haselager

Building interfaces between brains and computers is a multidisciplinary task, with potentially great promise, but currently with many formidable practical challenges. I will present a general, non-technical review of the main components of a BCI, review several of its current applications, and outline some of the obstacles yet to be overcome.

#### 11.15 am - 1.00 pm

#### BRAIN-COMPUTER INTERFACES: MORAL AND LEGAL RESPONSIBILITY

#### Pim Haselager, Amedeo Santosuosso, Franco Caroleo

Recent research in neuroscience and artificial intelligence lead to the development of neurotechnologies (e.g. Brain-Computer Interfacing and Deep Brain Stimulation) that may have substantial impact on the legally important issues of personal identity, agency and personal responsibility.

3.00 pm – 6.00 pm Location: Court of Milan, Aula Magna International conference: Neuroscience, Genetics and Behaviour.

#### 02 February 2012

9.00 am - 10.45 am

#### **NEUROSCIENCE AND ROBOTS**

#### Pim Haselager, Chiara Boscarato

Knowledge of the human brain and cognitive development means that robots can be created with ever more sophisticated and responsive Artificial Intelligence. At the same time, studies into the development of cognitive robots may be useful in gaining a greater understanding of the functioning of the human brain. Furthermore, robots with decisional capabilities are currently being built. The aim of this seminar is to examine the relationship between robots and neuroscience and the legal status of robots.

#### 11.15 am - 1.00 pm

#### FREE WILL AND DECISION MAKING

#### Daniela Ovadia

Until not too long ago, most people believed human morality was based on scripture, culture or reason. Some stressed only one of those sources, others mixed all three. None would have thought to include biology. With the progress of neuroscientific research in recent years, though, a growing number of psychologists, biologists and philosophers have begun to see the brain as the base of our moral views. Noble ideas such as

compassion, altruism, empathy and trust, they say, are really evolutionary adaptations that are now fixed in our brains. Our moral rules are actually instinctive responses that we express in rational terms when we have to justify them. A thorough analysis of the question of whether we possess "free will" requires that we take into account the process of exercising that will: that is, the neural mechanisms of decision making. Much of what we know about these mechanisms indicates that decision making is greatly influenced by implicit processes that may not even reach consciousness. Moreover, there are conditions, for example certain types of brain injury or drug addiction, in which an individual can be said to have a disorder of the will. Examples such as these demonstrate that the idea of freedom of will on which our legal system is based is not always supported by the neuroscience of decision making. We will discuss if new discoveries in neuroscience could be used as a tool for reprioritizing our society's legal intuitions in a way that leads us to a more effective system.

#### 2.15 pm – 3.45 pm

# FROM ETHICS TO BIOETHICS TO NEUROETHICS: WHAT'S NEW AND WHAT'S OLD.

#### Daniela Ovadia

The late 20th century saw unprecedented progress in the basic sciences of mind and brain and in the treatment of psychiatric and neurologic disorders. Now, in the early 21st century, neuroscience plays an expanding role in human life beyond the research lab and clinic. In classrooms, courtrooms, offices and homes around the world, neuroscience is giving us powerful new tools for achieving our goals and prompting a new understanding of ourselves as social, moral and spiritual beings. As we find out more and more about what makes us tick, we must stop and consider the ethical implications of this new knowledge. Will having a new biology of the brain through imaging make us less responsible for our behavior and lose our free will? Should certain brain scan studies be disallowed on the basis of moral grounds? Why is the media so interested in reporting results of brain studies?

Bioethics experts are concerned with the ethical questions that arise in the relationships among life sciences, biotechnology, medicine, politics, law, and philosophy. We will describe how the bioethical questions took importance in the last century and what are the peculiarities of bioethical reflection in the domain of neurosciences which lead to separate neuroethics from bioethics.

#### 4.15 pm – 5.30 pm

#### BODY OWNERSHIP - NEUROETHICS AND MEDIA

#### Daniela Ovadia

Are we really free to decide about what to do with our body? Some recent discoveries in neuroscience, as some hypothesis on biophysiological bases of body integrity identity disorders, arise a new concern about what we can do with our own body and the limits imposed by law and medical deontology. This is only an example (one of the most extreme) on how neuroscience can change our perception of what if right and what is not. With an ever-increasing understanding of the brain mechanisms associated with core human attributes and values, there is an increasing public interest in the results of neuroscience research and the ways in which that new knowledge will be used. We will present perspectives on engaging the public on these issues on an international scale, the role of the media, and prospects for the new field of neuroethics as both a focus and a driver of these efforts.

#### 03 February 2012

#### 9.00 am – 10.45 am STUDENTS PRESENT THEIR WORKS prepared in the Legal Labs

#### 11.15 am - 1.00 pm

#### STUDENTS PRESENT THEIR WORKS prepared in the Legal Labs

#### 2.30 pm - 3.45 pm

# ROUND TABLE among students and professors at the presence of two externals to the EANL WS, and one internal (UNIPV):

Dott. Livia Pomodoro, President of the Court of Milan (I);

Prof. Guido Alpa, President of the Italian National Council of Lawyers, Rome (I); Prof. Ettore Dezza, Dean of the Faculty of Law (University of Pavia, I)

4.15 pm – 5.30 pm BUFFET

#### 04 February 2012

Departure of participants

12.7 WINTER SCHOOL TIMETABLE														
	22 January	23 January	24 January	25 January	26 January	27 January	28 January	29 January	30 January	31 January	1 February	2 February	3 February	4 February
9. 00 am 10.45 am		WELCOME SESSIO	GENETICS AND SYNTHETIC BIOLOGY	HANDS-ON- LAB	PSYCHIATRY IN COURT	NEUROSCIENCE &LAW DATABASING: SIMILAR PROBLEMS AND DIFFERENT SOLUTIONS	Free time	time Free time	COGNITIVE NEUROSCIENCE. THE ROLE OF EMOTION AND MEMORY IN DETERMINING HUMAN BEHAVIOURS	LIE DETECTION AND THE PRIVILEDGE AGAINST SELF- INCRIMINATION IN CRIMINAL LAW	BRAIN COMPUTER INTERFACING (BCI). APPLICATIONS AND CHALLENGES	NEUROSCIENCE AND ROBOTS	STUDENTS PRESENT THEIR WORKS prepared in the Legal Labs	1
11,15 am - 1,00 pm	Arrival of	Keynote Lecture "The mirror mechanism: A mechanism for understanding others"	APPLICATIONS OF NEW TECHNOLOGIES TO REHABILITATION	THE LAW AND NEUROSCIEN CE: CIVIL-LAW AND COMMON- LAW POINTS OF VIEW	SCIENTIFIC RESEARCH AND THE LAW	NEUROSCIENCE &LAW DATABASING: THE UK AND NL EXPERIENCE			COGNITIVE NEUROSCIENCE	LEGAL LAB (criminal law)	BRAIN-COMPUTER INTERFACES: MORAL AND LEGAL RESPONSIBILITY	FREE WILL AND DECISION MAKING		
2.00 pm – 3.00 pm	0 pm – 10 pm 00 pm	Opening Addresses: The Italian Ministry of University and Scientific Research , Prof.Francesco Profumo	BRAIN IMAGING. THE METHODS	LEGAL LAB	LEGAL LAB	NEUROSCIENCE &LAW DATABASING: THE EANL AND ALST MULTILINGUAL APPROACH			HOW DOES LAW ABSORB SCIENCE?	NEUROSCIENCE AND THE MEASUREMENT OF PAIN IN COURT	CONFERENCE "NEUROSCIENCE, GENETICS AND BEHAVIOUR" Court of Milan	FROM ETHICS TO BIOETHICS TO NEUROETHICS: WHAT'S NEW AND WHAT'S OLD & BODY OWNERSHIP- NEUROETHICS AND MEDIA		
3.00 pm - 5.30 pm		INTRODUCTION TO THE SCHOOL: NEUROSCIENCE	BRAIN IMAGING. SCIENTIFIC RESULTS	HANDS-ON- LAB (BRAIN IMAGING)		LEGAL LAB (ICT AND NEURO&LAW DATABASING)			BREAKOUT SESSION	LEGAL LAB (tort)			BUFFET	



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