

EMJMD

**European Master in Translational Cosmetic and Dermatological Sciences
(EMOTION)**

CONSORTIUM AGREEMENT 2018-2024

Article 1: General provision and purpose

Article 2: Programme

- 2.1 Structure of the Programme**
- 2.2 Degree Awarded**

Article 3: Management

- 3.1. Roles and duties**
- 3.2 Joint governing boards**
 - a. Programme Directors and Coordinator**
 - b. Joint Consortium Board**
 - c. Selection Committee**
 - d. Secretariat**

Article 4: Decision-making procedure

Article 5: Students Administration

- 5.1 Joint Admission Procedure**
- 5.2 Assessment Methods**
- 5.3 Timetable**
 - a. Delivery of teaching modules**
 - b. Exam boards**
 - c. Resits**
- 5.4 The Joint Grading Scales and Performance Expectations for Students**
- 5.5 Final elective project work**
- 5.6 Student Services, Rights and Obligations**
- 5.7 Insurance**

Article 6: Budget management

- a. EACEA funding**
- b. Consortium allocation**
- c. Participation costs**
- d. Reimbursement of grants**
- e. Internal funding and other external funding**

Article 7: Quality Assurance Process

Article 8: Other aspects

- 8.1 Intellectual Property**
 - a. Ownership**
 - b. Confidentiality**

- c. Disclosures**
- 8.2 Publicity**
 - a. Website**
 - b. Use of logos**
- 8.3 Application of Laws**

Article 9: Entry into force, duration and amendment

Article 10: Partners

Article 11: Visiting Scholars

Annexes

Annex I - Grant Agreement

Annex II - Teaching Programme and Application/Enrollment Procedure

Annex III - Named Personnel

Annex IV - Student Agreement

Annex V - Budget Table and Funding Rules

The Consortium Agreement is concluded by and between the following Parties:

- **Università del Piemonte Orientale** Vercelli, ITALY (hereinafter referred to as UPO) as the Coordinating Institution
- **Universidad Miguel Hernandez** Elche, SPAIN (hereinafter referred to as UMH)
- **University of Namur**, Namur, BELGIUM (hereafter referred to as UNAMUR)
- **Humboldt-Universität zu Berlin** Berlin, GERMANY (hereinafter referred to as HU)

Collectively referred to as the “Partner Institutions”.

Article 1: General provision and purpose

This agreement describes the relationship between the Institutions for the delivery of a two-year Erasmus Mundus Joint Master Degree, funded through the European Commission: European Master in Translational Cosmetic and Dermatological Sciences (acronym “EMOTION”).

The development of this collaborative Programme has mutual benefits towards the Institutional goals of UPO, UMH, UNAMUR and HU.

The parties hereby agree as follows regarding the activities described in the terms and conditions herewith and according the Grant Agreement nr. 2018-1483/001-001-EMJMD (Annex I).

The purpose of this agreement is to define the principles for the implementation and management of EMOTION. It settles the conditions of involvement of the Parties and describes the financial rules to run the Programme. It outlines the principle and terms of their cooperation, as well as their rights and obligations with respect to the running of this Programme. This agreement will be implemented within the legal requirements at each University. The provisions of this agreement shall not diminish the fully autonomous position of any of the parties.

Article 2: Programme

The EMOTION Programme (the “Programme”) will be achieved over two years through the allocation of 120 ECTS.

2.1 Structure of the Programme

The Student will achieve 120 ECTS through a combination of coursework, tutored activities and final elective project work towards the Master thesis. In addition, all Students will attend three workshops that will be organized at UPO, UMH and UNAMUR. The workshops will provide training on soft and transferable skills and will provide a forum for Students to present their tutored work to the EMOTION academic key staff from the Partner Institutions and to industry.

I semester	II semester	III semester	IV semester
UPO	UPO	Mobility period chosen between UMH or UNAMUR	Final elective project (accredited to either UMH or UNAMUR)

Each Student on the Programme will study in at least two of the Partner Institutions. The Student must gain a total of 60 ECTS at UPO and 60 ECTS at UMH or UNAMUR. Students between UMH and UNAMUR will be balanced in numbers, according to student preference and merit. In these latter universities. 30 ECTS will be gained in formal lectures, tutored work and workshops as detailed in Annex II. The other 30 ECTS are gained in the final elective project, in which Students are formally associated to one of the two Institutions. The project may be conducted in any of the four Partner Institutions as well

as during internships (for example, in other universities, public institutions or in the private sector). Based on merit and on a medical degree upon admission, Students that have followed the option in UNAMUR may be admitted to a final elective project in HU.

As the Institution at which all Students shall register for the Programme, UPO shall be referred to as the “Admitting Institution”. The Institution at which the Students are resident at any one time shall be referred to as the “Host Institution”. At any one point in time, each Student shall be associated with one Host Institution, which may or may not be the same as the Admitting Institution.

Over the duration of the Programme, each Student shall be associated with two of the four Institutions. The Host Institution of the first two semesters is UPO, the Host Institution of the third and fourth semester can be UMH or UNAMUR.

2.2 Degree awarded

The double degree will be awarded after the completion of 120 ECTS in two of the four Partner Institutions (UPO and UMH or UNAMUR) and the student must have satisfied the requirements of at least two Partners for the award of their degree.

Each Partner Institution has formally considered and approved this EMJMD under the normal approval procedures for a degree recognition. The title awarded will be:

UPO: Master di primo livello European Master on Translational Dermatological and Cosmetic Sciences

UMH: Master Europeo en Cosmética Traslacional y Ciencias Dermatológicas

UNAMUR: Master in Biomedicine

The Programme is defined in Annex II. Changes to the Programme must be formally agreed through revisiting formal degree recognition procedures at each Institution.

Article 3: Management

3.1 Roles and duties

The EMOTION management structure will be arranged as follows:

a) Coordinating Institution:

The UPO is the Coordinating Institution and it also plays the role of the Admitting Institution. Within the limits of the Grant Agreement, the UPO, led by the Programme Coordinator, will, in particular, perform the following duties as stipulated by EACEA:

- Monitor that the action is implemented in accordance with the Agreement;
- Be the intermediary for all communications between the beneficiaries and the Agency;
- Make the appropriate arrangements for providing any financial guarantees required;
- Bear responsibility for providing all the necessary documents.

b) Partner Institutions

The Partners shall perform and complete their share of the Programme in accordance with this Agreement and with the requirements set out in the Grant Agreement.

The Partners shall provide the Coordinating Institution with any information and documents required for the preparation of the progress reports to the EACEA, with copies of all the necessary supporting documents completed and signed by legal representative each year by the schedule fixed by the Coordinating Institution.

Each Partner, including the Coordinating Institution, shall organize and realize the Programme activities in its own Institution, and specifically:

- Organization the teaching activities according the “Teaching Programme and Enrollment Procedure” (Annex II);
- Participation in the induction week and discussion of the elective research project;
- Tutoring of Students;

- Organization and participation in the workshops and conferences organized by Partners defined each year;
- Offering secondments for the final elective project;
- Outreach companies and signed agreements;
- Promotion activities, with focus on their own countries;
- Dissemination of results (scientific papers, communications at conferences, online resources);
- Production the course handbook: Coordinating Institution shall produce the introductory handbook, which details rules, regulations and content of the Programme. Each Partner shall improve the handbook, according to their own regulations and standards detailing information about the components of the Programme they offer.

3.2. Joint governing boards

a) Programme Directors and Coordinator

UMH, UNAMUR and HU shall appoint a local Programme Director while UPO, as the Coordinating Institution, shall name two academics, one of which will act as local Programme Director while the other shall be appointed as Programme Coordinator.

The Programme Director in each Institution shall liaise with his or her counterparts in the other Institutions on all matters concerning curriculum, assessments, Student progress and quality issues. The Programme Director at each Institution shall ensure that the Programme of study at the Host Institution is consistent with the objectives of the Programme curriculum.

The five academics for the academic year 2019/2020 are named in Annex III. The four local Programme Directors shall be automatically renewed for the following year unless the legal representative of one of the Institution names an alternative before December 30th of the previous year. Such change may be sent to the Programme Coordinator. The Programme Coordinator is automatically renewed for the following year unless the Rector of UPO names a different academic before December 30th of the previous year.

b) Joint Consortium Board

The Programme Directors and the Programme Coordinator shall be referred to as the “Joint Consortium Board” (JCB). The JCB is led by the Programme Coordinator.

The JCB holds executive power to make all decisions relating to the successful and compliant operation of the Programme: all those pertaining to general management, academic supervision, quality assurance, changes to the Consortium, dispute resolution and Student complaints related to the overall organization of the Programme, in so far as this does not conflict with the local rules and regulations of the Partner Institutions.

The JCB is responsible for:

- Clearly defining the Consortium goals at the outset;
- Coordinating the activities of the network as a whole;
- The Consortium’s outreach;
- The Annexes according to the annual scenario (e.g. teaching Programme, budget and allocation of funds).

The JCB is also in charge to nominate members of:

- Selection Committee (see art. 3.2.c.);
- Joint Examination Board - JEB (see art. 5.2 and 5.5);
- External Advisory Board - EAB (see art. 7).

The JCB will meet physically at least once a year, while frequent interaction will be realized electronically.

c) Selection Committee

The Selection Committee is responsible for the selection and admission process. The Selection Committee will be made by a member of each of the Partner Institutions and JCB members may be part of the Selection Committee. Furthermore, administrative staff may be co-opted as non-voting members. It is appointed during the annual meeting of the JCB.

d) Secretariat

There shall be a Secretariat for the overall management of the Programme, under the guidance and governance of the JCB.

The Secretariat shall consist of personnel from the UPO, UMH and UNamur and will be coordinated by an administrative member of staff at UPO (referred to as Programme Administrative Project Manager); it will be responsible for the administrative issues and for advising the JCB on administrative matters. It is in charge of the daily management of the Programme and its support mechanisms, specifically tasks regarding quality assurance, application, selection and admission, Student administration, mobility coordination, insurance, grant funding and assisting the Programme Coordinator in its contact with the EACEA. The Programme Administrative Project Manager is named in Annex III. The Project Manager is automatically renewed for the following year unless the Rector of UPO elects a different member of staff by December 30th of the previous year.

The administrative staff that form the Secretariat shall liaise one another with any means they reckon necessary (e.g. phone, e-mail, teleconference), including meeting in person.

Article 4: Decision-making procedure

Decisions shall be taken during meetings, video-conferences, or by means of email consultation.

All Partners of the JCB shall be consulted. All decisions shall be taken by consensus and shall be unanimous.

Since a decision engages the Partner Institutions, the Partner representative shall take every precaution to ensure his/her decision is in agreement with his/her collaborators, Institution practices, and legal obligations.

A Partner who can demonstrate that a decision goes against its administrative procedures shall exercise a veto with respect to the corresponding decision or relevant part of the decision. Its demonstration shall be supported by legal documents. In case of exercise of veto, the Partners shall make every effort to resolve the matter which occasioned the veto to the general satisfaction of all.

Article 5: Students Administration

5.1. Joint Admission Procedure

Students shall apply for admission to the Programme through the Admitting Institution that share information to Partners.

The following **eligibility criteria** must be fulfilled by Students applying for the Programme:

- **A Bachelor degree or higher from a recognized academic higher education Institution (equivalent to a European undergraduate degree of 180 ECTS – 6 semesters) in a field related to the Programme area** (for example Pharmacy, Medicine, Biology, Biochemistry, Chemistry, Pharmaceutical Sciences, Biomedical Sciences, Genetics, Molecular Biology, Chemical Engineering). The grade average of the previous study should prove high qualification of the applicant.
- **The proof of English proficiency documented by an internationally recognized certificate (at least level B2)** for non-native speakers of English only.

Candidates are responsible to meet the visa requirement for the countries in which each Host Institution is located.

Applications are first evaluated for eligibility by the Secretariat and the Programme Coordinator. Eligible applications are then submitted to the **Selection Committee**, which creates a ranking list of candidates according to the criteria listed below.

Applicants are ranked according to their academic merit (including academic records of previous studies, scientific background, ranking of academic Institution where undergraduate studies were done, awards and grants), research experience (acquired practical experience), motivation letter and reference letters. Assessment of the academic merit range from 0.0 to 4.5. Assessment of research experience range from 0.0 to 2.5. Assessment of the motivation letter range from 0.0 to 2.0. Assessment of the Reference letters range from 0.0 to 1.0. The 30 top candidates will be invited for an interview by tele-conference with the Selection Committee. These 30 candidates will also be determined by regional origin. In brief, no programme country can be represented on the short-list with more than 2 candidates and no partner country can be represented with more than 4 candidates. Assessment of the interview will range from 0.0 to 5.0 points.

Candidates will be placed on a main list, on a reserve list or will not be admitted. In order to ensure geographical diversity among Students, the Consortium shall respect the following basic criteria when selecting Students for an EMJMD scholarship: no more than three Students selected for an EMJMD scholarship should have the same nationality in any given year.

The Selection Committee will undertake a second selection round to enroll a further maximum 15 self-funded Students with the identical criteria to those described above. This second round will be restricted to European citizens.

Admission and Registration

On admission, Students will register for the two-year Programme at the Admitting Institution. The Student Agreement will be signed by both UPO and the enrolled Students.

5.2 Assessment Methods

a) Assessment of teaching modules

At the end of each of the first three semesters Students will be assessed by written, practical or oral exams.

At the end of each of the first two semesters, the results will be processed by UPO, while at the end of the third semester, the results will be communicated by the Host Institution (UMH or UNAMUR, according to mobility) to UPO and processed.

The rules for determining the grade of each teaching unit are local to the Host Institution.

b) Assessment of the tutored work

The result of the tutored work, which may be in written or oral presentation form, will be assessed by the academic responsible for the work or during workshops.

c) Workshops

The workshop work will be assessed by written, practical or oral exams relevant to the contents of the workshop.

d) The final elective project

It will consist of a written report (thesis) and a formal thesis defense and will be assessed by the members of the Joint Examination Board (JEB), which shall consist of a representative of each institution. The JEB is named by the JCB and JCB members are four.

e) Overall assessment

At the end of the Programme, final grading of the Student will be collated by UPO.

5.3 Timetable

a) Delivery of teaching modules

Students will attend UPO for the full first academic year and UMH or UNAMUR for the first

semester of the second year. Teaching modules will be delivered between September and February and between March and June of the first year and between September and February of the second year with examination periods at the end of each semester.

Although the semester timetables differ slightly in each Institution every effort will be made to ensure that Students attending the Programme at different locations will start and finish in the same period allowing adequate vacation between the two academic years.

Care will be taken to ensure that Students have a balanced workload in each semester.

b) Exam boards

Exam boards at Host Institutions will be held at the end of each semester and results will be communicated to UPO in a timely fashion in order to have them processed.

With relation to assessment and reporting, the Host Institution has the primary and ultimate responsibility for obtaining and transmitting to the Coordinating Institution assessment records for all participating Students.

c) Resits

If the Student fails an examination, he/she will have the opportunity to sit an additional examination. The regular local procedure established by the Host Institution for retaking the exam applies.

5.4 The Joint Grading Scales and Performance Expectations for Students

All modules (taught and tutored) are weighted according to the ECTS system. Different grading systems are in place at the Partner Institutions and the system for grade conversion described in Table 1 is applicable.

ECTS grading scale	UPO	UMH	UNAMUR	HU
A	30	8,5/10	16,5-20	1
B	29	8,2/8,4	16-16,4	1,1/1,2
B	28	7,9/8,1	15,5-15,9	1,3/1,4
B	27	7,5/7,9	15-15,4	1,5
C-D	26	7,2/7,4	14,6-14,9	1,6/1,8
C-D	25	6,9/7,1	14,1-14,5	1,9/2,1
C-D	24	6,5/6,8	13,5-14	2,2/2,5
D-E	23	6,4	12,8-13,4	2,6
D-E	22	6,3	12,2-12,7	2,7/2,8
D-E	21	6,1/6,2	11,7-12,1	2,9/3,1
D-E	20	5,9/6	11,2-11,6	3,2/3,4
D-E	19	5,7/5,8	10,6-11,1	3,5/3,7
D-E	18	5,5/5,6	10-10,5	3,8/3,9
FAIL	17/0	0/5,4	0-9,9	4,0/5,0

Table 1.

A grade superior or equal to E has to be obtained in order to be awarded with the ECTS corresponding to the teaching unit. If the Student fails an examination, he/she will have the opportunity to sit an additional examination. The regular local procedure established

by the Host Institution for retaking the exams applies. The degrees awarded will be accompanied with a diploma supplement which will document the grades and ECTS achieved in each component of the double degree.

5.5 Final elective project work

During the fourth semester the Student must write-up a thesis that will be submitted to his/her supervisor and one reviewer (internal or external). The supervisor is represented by a member of the academic staff in which the Student has attended lectures (UPO and UMH or UNAMUR). The elective project is presented during the Induction Week, held in September at UPO, two years after enrollment, in front of a jury (**Joint Examination Board, JEB**). The members are four and are named by the JCB. The JEB delivers the final mark and write an overall assessment.

5.6 Student Services, Right and Obligations

Students shall be entitled to the same services, rights and privileges (including academic and library resources and Student support services) as Students normally enrolled at the Host Institution.

Each Student shall enjoy the privileges and be subject to the regulations of the Host Institution during the period of completion of study at the Host Institution.

Student issues, rights and obligations are detailed in the Student Agreement (annex IV).

5.7 Insurance

The Coordinating Institution will provide the Student with basic health insurance for the nominal two-year duration of the Programme. The insurance provided is in line with the EMJMD insurance requirements as set by the EACEA and is covered by the Erasmus+ EMJMD EMOTION scholarship. The Consortium is exonerated from any responsibility for accidents, illnesses, injuries, issues related to delays in visa/residence permit application procedures, losses or damages to persons or goods resulting from or in any way related to the activities that are object of the present contract.

Article 6: Budget management

... Omissis...

Article 7: Quality Assurance Process

The maintenance of the academic standards and the management and enhancement of both procedures for quality assurance and control are the collective responsibility of the Partner Institutions. The management bodies are:

- **Joint Consortium Board (JCB)**: It has the core responsibility for the quality assurance of the Programme.
- **External Advisory Board (EAB)**: It represents the industry stakeholders and internationally recognized experts in the field of cosmetic and dermatological sciences. This board gives non-binding judgements on the Programme structure and contents, and provides advice aimed at ensuring the excellence of the Programme. It is composed of 6 members that meet at least once yearly. It is named by the JCB.
- **Student - Academic Staff Committee (SASC)**: It is composed of one person per Partner Institution named by the Programme Coordinator and four elected Students per each intake. It is called upon in two ways: (i) Students use this Committee to bring formally to the attention issues to the management; (ii) the Committee gives a non-binding judgement on the changes proposed by the JCB.

Student elections will be overseen by the JCB. SACS meets once a year.

Article 8: Other aspects

8.1 Intellectual Property

a) Ownership

The ownership and/or control of intellectual property used or generated in connection with the Programme should apply as follows:

- If generated by the Student, subject to the rules of the Institution where the Student was registered at the time the intellectual property was created;
- If generated by staff, subject to the rules of the employing Institution.

b) Confidentiality

The Institutions shall each individually confirm that strict confidentiality will be observed in all communications relating to portable or potentially commercially valuable intellectual property created within the Programme. The same accounts for patient and study data.

c) Disclosures

No disclosures will be made to third parties without permission of the appropriate authorities/person. Where intellectual property is developed jointly between Students and/or staff of both Institutions, the Institutions shall agree which of Institution shall manage the intellectual property and for this purpose shall ensure that full assignments of intellectual property are obtained.

8.2 Publicity

The Partner Institutions shall agree to work together to deliver publicity for the Programme.

a) Website

There shall be a single website for the Programme. The Coordinating Institution shall maintain this website and Partners will maintain links to that website from their own websites.

b) Use of logos

Partners are required to respect the EU rules about logos and promotion of EMOTION. If an Institution wishes to include logo of another Institution in publicity material, then this use must be approved in advance by the Institution that owns the logo to be reused.

8.3 Application of Laws

The Institutions agree that every person connected with the Programme in relation to the mutual undertakings with each other shall abide by, conform to, and comply with all of the laws of Italy, Spain, Belgium and Germany or other relevant jurisdictions as well as the statutes, regulations and disciplinary rules promulgated by each Institution. Each Institution shall provide Programme participants with a copy of its statutes, regulations and disciplinary rules.

The laws of Italy shall govern the construction and performance of this Agreement when UPO is the respondent. The laws of Spain shall govern the construction and performance of this Agreement when UMH is the respondent. The laws of Germany shall govern the construction and performance of this Agreement when HU is the respondent. The laws of Belgium shall govern the construction and performance of this Agreement when UNAMUR is the respondent.

Article 9 Entry into force, duration and amendment

EMOTION Programme comes into force on 1st of September 2019 (date of beginning) and

4 biennial editions will be offered by the Consortium (2019-2020; 2020-2021; 2021-2022; 2022-2023 courses respectively). The present Consortium Agreement shall enter into force after its signature by all parts but shall have a retroactive effect from 1st September 2019 (date beginning). It shall be valid until as long as the Programme is active. It shall be renewable and modifiable by mutual agreement of the Partner Institutions.

No change, alteration, modification or addition to this Agreement shall be valid unless agreed in writing and signed by the authorized representatives of each Partner.

Annexes will be revised once a year by JCB without requiring a renewal of this Consortium Agreement.

The Parties agree that any disputes arising from the performance of this Agreement shall be resolved in a forum agreed by all Parties.

Article 10: Partners

Each of the Partner Institutions may propose to the Programme Coordinator the inclusion of third parties, including associated industrial partners. Each institution is responsible for the signing of framework agreements with the partners and to determine the nature of the relationship of the partner after having sought written consent from the Programme Coordinator. The partners will be listed on the Programme website (<http://www.emotion-master.eu/>). If financial agreements are made between the two parties, any profit or debit remains with the signing institution.

Article 11: EMOTION Visiting Scholars

Each of the Partner Institutions may propose to the Programme Coordinator the inclusion of Visiting Scholars. Each institution is responsible to sign contracts with the scholar according to the local rules after having sought written consent from the Programme Coordinator. The Visiting Scholars will be listed on the Programme website. If financial agreements are made between two parties, any profit or debit remains with the signing institution.

Annex I: Grant Agreement

Annex II: Teaching Programme and Application/Enrollment Procedure

Teaching Programme

FIRST YEAR – First semester (all students at UPO)

Subject	ECTS	ECTS Structure	
		Teaching	Individual work
Anatomy and molecular physiology of skin and appendages	4	24	76
Pathological mechanisms of skin disorders	5	30	95
Statistic, data retrieval, data mining and epidemiology	6	36	114
The pillars of drug discovery and development (I)	11	66	209
General principles of drug and cosmetic regulation	2	12	38

1. Anatomy and physiology of skin and appendages. The students will learn anatomy and histology of skin and appendages and the physiological mechanisms regulating the intergumentary system.

Staff: Bosetti, Distasi and visiting scholars

2. Pathological mechanisms of skin disorders. The students will learn the basis of mucosal immunity, the pathogenesis of inflammatory skin disorders, either autoimmune disorders or allergies, and the cellular and molecular mechanisms underlying wound healing. The students will also gain knowledge on the physiological microbiota of skin and on the principal pathogens associated with skin diseases.

Staff: Fracchia, Porta and visiting scholars

3. Statistics, data retrieval, data mining and epidemiology. The students will gather basic information on statistics for the biomedical sciences, will be taught how to retrieve, categorize and use information both in a supervised and unsupervised manner. This will include the know-how to perform systematic reviews of the literature and meta-analysis as well as the basic principles of epidemiology to understand the therapeutic need. These topics will be consolidated through examples and computer exercises.

Staff: Ruffinatti, Cargnin, Barone Adesi and visiting scholars

4. The pillars of drug discovery and development (I). The course delivers information on the drug discovery and development process providing the general principles of R&D. It will be divided in sub-courses:

(i) Introduction to the general principles of R&D and translational skills (including project management, decision making, communication skills, intellectual property, trademark protection and good practices).

Staff: Genazzani, Grilli, Appendino and visiting scholars (2 ECTS)

(ii) Organic Chemistry. The students will be introduced to the main functional groups and heterocycles, their electronic properties and reactivity. Selected examples of synthetic routes to pharmaceutical and cosmetic compounds will be illustrated.

Staff: Minassi and visiting scholars (4 ECTS)

(iii) Natural products. What is a natural product and how to distinguish natural products from their synthetic version? Plant natural product biosynthesis. Plant biotechnology to produce natural products. Terpenes, alkaloids, flavonoids. Aromas and fragrances.

Staff: Appendino and visiting scholars (2 ECTS)

(iv) Protein Science and biotechnology. The course will provide the rudimental of biotechnology and protein science and elaborate around the central concept of protein structure-function relationship. Selected biotechnological techniques used in protein science will be reviewed and examples of proteins of pharmaceutical interest for translational cosmetic and dermatological science will be presented.

Staff: Rizzi and visiting scholars (3 ECTS)

5. General principles of drug and cosmetic regulation – This unit focuses on the main issues regarding regulations and the distinction between the pharmaceutical and the cosmetic world and the different geographical regions.

Staff: Morel, Genazzani and visiting scholars

FIRST YEAR – Second semester (all students at UPO)

Subject	ECTS			
		Teaching	Individual work	Laboratory
The pillars of drug discovery and development (II)	13	78	247	
Principles of dermatological symptoms and of skin aging	4	24	76	
Strategies for the synthesis or extraction of novel compounds and formulation	9	18	135	72

1. The pillars of drug discovery and development (II). The course delivers information on the drug discovery and development process providing the general principles of R&D. It will be divided in sub-courses:

(i) Pre-clinical and Clinical Pharmacology. The course will illustrate the drug discovery process from a pharmacological perspective and will provide students with notions of the main drug classes. The course will also provide students with the ability to read and critically analyse pre-clinical and clinical data.

Staff: Genazzani and visiting scholars (4 ECTS)

(ii) Medicinal Chemistry. The course will provide the students with the basic principles for the discovery and optimization of a bioactive compound, from hit to lead, with a focus on drug metabolism. The design of prodrugs and softdrugs for topical use will be covered. Examples of successful stories of dermatological drugs will be presented.

Staff: Pirali, Tron and visiting scholars (3 ECTS)

(iii) In silico drug discovery and design. The course will illustrate the many ways we can describe, represent and visualize molecules in the computer, the importance of recognizing and understanding the concept of similarity and the physicochemical and topological descriptors. The students will learn the use of 3D Quantitative Structure-Activity Relationships (QSARs) approaches as an example to correlate molecular structures with their known biological endpoints. The In silico optimization of new molecular entities to enhance potency against the enzyme-binding site of interest will be illustrated.

Staff: Massarotti and visiting scholars (2 ECTS)

(iv) Principles of drug formulation. The course will provide students with basic principles of formulation, illustrating how physical pharmacy principles are applied to the preparation of liquid and semi-solid dosage forms used for topical application of medications and cosmetics (creams, ointments, gels, colloids, patches and sunscreen formulations).

Staff: Armando Genazzani, external contract and visiting scholars (4 ECTS)

2. Principles of dermatological symptoms and of skin aging. The students receive knowledge on the dermatological symptoms, and the clinical features of disorders, including skin photo-ageing and photoprotection. The course will highlight the current unmet medical needs.

Staff: Armando Genazzani, external contract and visiting scholars

3. Strategies for the synthesis, extraction of novel compounds, formulation and analysis of dermatological products. This course makes use of formal lectures as well as of experiments in laboratory. At the end of this course, students will be able to conduct a synthesis, from the setup of the reaction to the purification of the product, to perform extraction and distillation of natural sources, formulate a dermatological product, evaluate its quality and interpret data. In particular, students will be provided with:

- the main safety principles and techniques used for the synthesis of organic compounds (reaction setup, product isolation and purification); **3 ECTS** = 1 ECTS lessons (6 h) + 2 ECTS lab (24 h)
- the principles and techniques for the isolation of organic compounds from their natural sources; **2 ECTS** = 1 ECTS lessons (6 h) + 1 ECTS lab (12 h)
- the techniques for the formulation of cosmetic and dermatological products; **2 ECTS** lab = 24 h

- the key areas of quality control of cosmetic and dermatological products, including chemical and physical analysis (e. g. liquid chromatography, Uv-Vis spectrophotometry), product stability and factors influencing the storage and shelf-life; **2 ECTS** = 1 ECTS lessons (6 h) + 1 ECTS lab (12 h)

Staff: Pirali, Galli, Pollastro, Lucchini, Del Grosso, Aprile and visiting scholars

SECOND YEAR – First semester

1. Option Cosmetic and Pharmaceutical Research (UMH; half of the students)

Subject	ECTS	ECTS Structure		
		Teaching	Individual work	Laboratory
Cosmetic and dermatological products on the market; from molecular biology to market	3	12	51	12
In vitro skin models for testing and evaluation	9	42	159	24
Safety evaluation	3	12	51	12
Pre-clinical regulatory and quality compliance issues world-wide	3	12	51	12
Scientific skills in preclinical studies	2		26	24

1. Cosmetic and dermatological products on the market: from molecular biology to market - At the end of the course the student will be provided with the principles for developing bioactive molecules into products based on solid science that includes the use of biotechnology-derived ingredients, genetic profiling for individual skin-care, stem-cell-based products and therapies to regenerate ageing tissues, or cell and tissue engineering. In addition, the course will also concentrate on market penetration, value proposition and value development of products.

Staff: Antonio Ferrer Montiel, Asia Fernández Carvajal and visiting scholars

2. In vitro skin models for testing and evaluation - The main aim of this course is to provide the knowledge necessary to design, develop and validate bioactive compounds from library screenings to cosmetic and dermatological applications to obtain effective and stable products for exploitation. At the end of the laboratory, the students will be familiar with the most up-to-date cellular and multicellular in vitro models employed to assess the efficacy, safety, and mechanism of action of bioactive molecules and other ingredients.

Staff: Asia Fernandez Carvajal, Gregorio Fernández Ballester, Isabel Devesa, Enrique Barrajon and visiting scholars

3. Safety Evaluation - The course will address potential off-target effects as well as knowledge on how to perform safety assessments and toxicological profiles of cosmetic and dermatological products, evaluating the risks of their application to healthy human skin under normal and foreseeable use conditions.

Staff: Enrique Barrajon, Maria Herranz and visiting scholars

4. Pre-clinical regulatory and quality compliance issues world-wide - The student will be provided with the main laws and regulations for cosmetics and drugs for exploitation, including good laboratory and manufacturing practices, requirements for registration, and labelling.

Staff: Enrique Barrajon, Vicente Micol, Isabel Devesa and visiting scholars

5. Scientific skills in preclinical studies - The student at the end of the course will be able to cope with the scientific literature and with writing a scientific paper, divulgate and marketing skills.

Staff: Antonio Ferrer Montiel, Asia Fernandez Carvajal, Vicente Micol, Isabel Devesa and Enrique Barrajon.

2. Option Clinical Development (UNamur; half of the students)

Subject	ECTS	ECTS Structure	
		Teaching	Individual work
Clinical trials	6	60	90
Quality assurance: GMP, GCP, GLP and auditing	4	42	58
Bioethics	2	20	30
Clinical study management	3	20	55
Clinical research associate training	2	15	35
Clinical project management	2	15	35
Biomarkers, biobanks, personalized medicines	3	25	50
Project management: development of biomarkers	2	22	28

Clinical trials. The student will get an overview of the entire process of Clinical Drug Development. The current rules and regulations are explained and put into a historical perspective. The course will teach how the different actors are involved in clinical drug research, about the respective roles and the way they interact between one another. Through some practical exercises and visits to phase 1, CRO and pharmaceutical companies, the student will have a better insight on how medications are distributed, stored and administered to subjects, how the coordination in Clinical Trials Centres occurs and what the different source documents look like. The course will discuss some ethical questions, new trends in Clinical Development, innovative ways to recruit subjects in Clinical trials, adaptive designs, concept of Lean and the latest trends in Clinical research. It will also tackle the new European Regulation on Clinical trials.

Staff: Y. Geysels (visiting scholar)

Quality assurance: GMP, GCP, GLP and auditing. The principles of quality assurance in the field of healthcare and drug development are depicted. The international standard ISO17025 is reviewed in detail to give a complete overview of a quality system with organizational and technical requirements. The different GxP standards will be covered:

GLP (good laboratory practices) for the pre-clinical studies; GCP (good clinical practices) and GCLP (good clinical laboratory practices) for the clinical studies; GMP (good manufacturing practices) and GDP (good distribution practices) for drug production and distribution. Finally, the students will be introduced to the concept of validation in the broad sense of the term, to cover all the topics concerned by qualification or validation needs (equipment, process, methods, IT systems....)

Staff: P. Lienard (visiting scholar)

Bioethics. This course will illustrate the ethical requirements for the conduction of clinical trials in contemporary science, also giving an overview of historical pillars that brought legislations and opinions to change.

Staff: L. Ravez

Clinical study management. This course puts emphasis in the practice of the theoretical concepts. The role of clinical study manager will be explained. Applicable software system used by biotechnology and pharmaceutical industries will be explained as well, with focus on planning, performing and reporting functions, along with participant contact information, tracking deadlines and milestones. The course we highlight the following topics: efficient recruitment of trial participants; the importance of education and experienced study personnel; publication of trial results and dissemination.

Staff: M. André, Y. Geysels (visiting scholars)

Clinical research associate training. The course will provide students with the basic training required for clinical research associates. The course has the added value of allowing students to undertake an internship in a clinical research organization according to EU legislation, if in their will.

Staff: J. P. Gillet and visiting scholars

Clinical project management. The students will be introduced to the role, skills and responsibilities of a Clinical Project Manager (hard skills, soft skills and how to optimize clinical trials).

Staff: L. Delbecque (visiting scholar)

Biomarkers, biobanks, personalized medicines. The students will be introduced to the definition and the relevance of biomarkers. The program of this course provides key elements on the use of biobanks for the development of research projects, including legislation, ethics rules and requirements in terms of quality of the samples used. At the end of this course, students will be taught the advantages and issues of setting up a personalized medicine.

Staff: F. Mullier, L. D'Hondt, F. George (visiting scholars)

Project management: development of biomarkers. Regulatory aspects linked to the development of biomarkers are addressed in depth. Several research projects are presented to illustrate: the upstream steps to the experimental work; the diversity of experimental approaches that can be taken on.

Staff: J. P. Gillet

WORKSHOPS

Subject	YEAR/SEMESTER	ECTS	Structure of the ECTS	
			Seminars	Indiv.

Size, characteristics and peculiarities of the dermatological and cosmetic markets	I/I (Italy, UPO)	2	12	38
Communication and Job Seeking Skills	I/II (Belgium, UNAMUR)	3	18	57
Business Plan and Entrepreneurship	II/I (Spain, UMH)	3	18	57

Size, characteristics and peculiarities of the dermatological and cosmetic markets. This workshop will introduce students to the pharmaceutical and cosmetic industry, the main areas of investment of companies as well as to the world of marketing. Dedicated lectures on marketing strategies, social communication, digital commerce and social data enrichment will be delivered alongside lectures that illustrate size and characteristics of the different markets.

Communication and Job Seeking Skills - At the end of the workshop participants will be able to set up and manage a personal strategy for job searching. The intensive programme provides participants with the insights and skills to: (i) understand and explore recruitment tools and channels; (ii) improve their understanding of personal proposition; (iii) develop a more strategic approach to job searching and networking; (iv) plan a process to manage career step; (v) better understand and use the principles of human resources relations; (vi) practical exercises. Part of the time will also be reserved to the presentations by students on their Case Study.

Business Plan and Entrepreneurship - The students will receive lectures from non-academic professionals relating to the ideation and construction of businesses centred on cosmetic and pharmaceutical products, with examples of success stories as well as failures. Part of the time will also be reserved to the presentations by students on their Business Plan and on their Clinical Trial.

TUTORED WORK

	YEAR	SEMESTER	ECTS	TOTAL HOURS
Case study and Project Management	First	Second	4	100
Starting up a company: the Business Plan	Second	First - Option A	4	100
What is intellectual property and how to protect it	Second	First - Option A	3	75
A case study of clinical trials	Second	First - Option B	3	75
Internship, stage or elective research project Stage	Second	Second	30	750

Case Study and Project Management. The course will run with tutors. Students will be given a cosmetic or pharmaceutical product and they will need to explore: (i) the biological potential; (ii) the marketing potential; (iii) the literature that supports any claims; (iv) to propose a strategy for marketing the product; and (v) to provide R&D programmes for follow-on products and for life-cycle management. The course will also use flipped classroom techniques by which students will be required to work in teams. The Case Study will be presented by the students during one of the workshops.

Starting up a company: the Business Plan - Students, working in groups, will be required to develop a business plan for a potential new company they would like to set-up around their interests. They will receive tutoring on the scientific and business aspects of the project. The project will culminate

at the end of the semester during one of the workshops in a pitch delivered to non-academic professionals that will play the role of investors during one of the workshops.

What is intellectual property and how to protect it - The students will learn the conditions for discovery, intellectual property rights and patenting. The structure of a patent application will be reviewed and concepts such as objective novelty, priority principle and inventive step will be reviewed and illustrated with examples. Emphasis will be on principles and strategies in connection with preparing patent applications, with weight on types of requirements and their formulation. Various illustrative case stories will be reviewed and worked on in groups, and students will then present their results.

A case study of clinical trial - Students will be asked to design a clinical development (Phase I, Phase II, and Phase III study) for a drug which has just completed pre-clinical investigations. Students will be divided in small groups (2-3). The Case Study will be presented during one of the workshops.

	ECTS	HOURS
TOTAL	120	3000

During the fourth semester, Students will complete an elective project in industry or at a research laboratory. Each Partner is responsible to signed and arrange agreements with industry in order to manage traineeships. The location and the subject of the traineeship have to be validated by the JCB. The traineeship lasts 22 to 26 weeks.

Application/Enrollment Procedure

EMJMD Fellowships

Application

The application process is organized at the University of Piemonte Orientale. Only complete online applications will be eligible and will be assessed. The online application platform opens on February 1st, 2019. All applications must be submitted through the application platform by February 28th, 2019.

Applications must include the following documents, in the order specified here:

- A Declaration Form of Student's applicant status, where he/she declares that he/she understands and fulfills the eligibility criteria for Erasmus Mundus Joint Master Degree student scholarship;
- European format Curriculum Vitae in English, provided with date and signature, to present qualifications, experience and skills, effectively and clearly;
- A scan of the residence certificate that can be issued in accordance with the candidate's municipality normal registration rules (issued within 12 months before the application deadline); in the countries where a residence certificate is not possible to obtain, a certificate from the candidate's place of work or study or training issued by the employer or institution is also sufficient;
- A scan of the original University degree(s) (Bachelor and if it's the case Master) AND certified translation if the document is not issued in English);
- A scan of the original (AND certified translation if the document is not issued in English) official Transcript/Academic Record, stating which courses were taken and what grades were obtained at the time of application;
- Proof of English Proficiency using a scanned copy of result sheet;
- Copy of a valid identity document or passport. Please note that if applicants have more than one nationality, they must decide at this stage under which nationality they apply;
- A Motivation Letter in English (maximum 750 words). In the letter, the candidate should explain how past experiences have prepared him/her for participation in the Programme, how this programme is likely to improve his or her own career perspectives, and why the candidate is interested in the school. Note that handwritten letters are NOT accepted;
- Two Reference Letters (in English) from university professors or employers. The only requirement is that the contact details of the person providing the reference must be clearly typed and must contain a business email address [not a private one] and a telephone number.

Enrollment

The enrolment procedure is organised at the University of Piemonte Orientale.

1 - MAIN LIST

Applicants selected for an EMJMD fellowship are notified by e-mail and have to confirm their acceptance within one week after receipt of selection result by sending the signed Declaration of Acceptance.

Admission Letters are sent by e-mail as soon as the Declaration of Acceptance arrives at the Coordinating Institution.

Visa application should be started as soon as the Student receives the Admission Letter. The full application package must be submitted within the timeframe suggested in the Admission Letter (about 6 weeks), and the approval of the EACEA. It must be sent by post to the following address:

Chiara Gabellieri, Segreteria Didattica, DSF, Università del Piemonte Orientale
Largo Donegani 2/3, 28100 Novara, ITALY

and must contain the following documents:

- Filled out and signed original Enrolment Form;
- Proof of identity (identity document or colour scanned copy of the passport, all pages);
- A legalised ORIGINAL* (AND ORIGINAL certified translation if the document is not issued in English) of university diplomas;
- Declaration of value**;
- A legalised ORIGINAL* (AND ORIGINAL certified translation if the document is not issued in English) of official Transcript/Academic Record;
- Originals of the Reference Letters submitted for the application;
- A signed copy of the Student Agreement;
- A scan of the Italian fiscal code or a filled out and signed form for the request and release of the fiscal code (AA4_8 form);
- Candidates with degrees awarded by Chinese universities must additionally obtain an APS certificate. Degrees from other universities do not require an APS certificate;
- A scan of the proof of visa request for applicants coming from extra-EU countries;
- Two passport type photos.

* An ORIGINAL is a document certified by the institution awarding the degree. Some Universities provide graduates with more copies of their diplomas, one of which is considered the original and other certified copies. In this case, the certified copy stamped and signed by the institution awarding the degree is considered an ORIGINAL.

** The “dichiarazione di valore” (declaration of value) is an informative document describing the qualification awarded to a given person by an institution belonging to an education system other than the Italian system. It is used by the competent University offices to assess a given qualification for the purpose of admission to a degree programme or for recognition of the foreign qualification. It is usually issued by the Italian Embassy in the country where the qualification was awarded. It generally contains the following information: legal status and type of issuing institution; access requirements for the programme resulting in the qualification; legal duration of the study programme and/or overall commitment required of the student in terms of credits or hours; value of the qualification in the system/country where it was issued, i.e. for academic and/or professional purposes. The declaration of value can be replaced by:

- a Diploma Supplement, based on the European Commission form, for academic qualifications awarded by institutions in countries in the European Higher Education Area (Bologna Process). Those wishing to enrol in a second cycle degree programme are not required to submit a certificate listing the exams or the syllabus;
- attestations issued by ENIC-NARIC centres that contain all the information usually listed in the declaration of value and necessary for the evaluation of the degree.

The remaining candidates that are selected, but not offered a scholarship because of their lower ranking, are placed on the RESERVE LIST. Candidates on this list might be offered an EMJMD scholarship if candidates on the main list drop out, or if they fail to provide a complete application package before the deadline.

European candidates that are on the RESERVE LIST and that have not been offered a scholarship can apply for a place in the programme as self-funded students.

Self-funded students

EMOTION offers enrolment to European residents that have not been awarded with an EMJMD scholarship.

Application

Applications will be received between Mai 2nd and June 28th, 2019.

Applications must include the following documents, in the order specified here:

- A Declaration Form;
- European format Curriculum Vitae in English, provided with date and signature, to present qualifications, experience and skills, effectively and clearly;
- A scan of the residence certificate issued in accordance with the candidate's municipality normal registration rules (issued within 12 months before the application deadline);
- A scan of the original University degree(s) (Bachelor and if it's the case Master) AND certified translation if the document is not issued in English);
- A scan of the original (AND certified translation if the document is not issued in English) official Transcript/Academic Record, stating which courses were taken and what grades were obtained at the time of application;
- Proof of English Proficiency using a scanned copy of result sheet;
- Copy of a valid identity document or passport;
- A Motivation Letter in English (maximum 750 words). In the letter, the candidate should explain how passed experiences have prepared him/her for participation in the Programme, how this programme is likely to improve his or her own career perspectives, and why the candidate is interested in the school. Note that handwritten letters are NOT accepted;
- Two Reference Letters (in English) from university professors or employers. The only requirement is that the contact details of the person providing the reference must be clearly typed and must contain a business email address [not a private one] and a telephone number.

Enrolment

Selected applicants will be notified by e-mail by July 15th, 2019 and have to confirm their acceptance within one week after receipt of selection result by sending the signed Declaration of Acceptance.

Admission Letters are sent by e-mail as soon as the Declaration of Acceptance arrives at the Coordinating Institution.

The full application package must be submitted within the timeframe suggested in the Admission Letter (about 6 weeks), must be sent by post to the following address:

Chiara Gabellieri, Segreteria Didattica, DSF, Università del Piemonte Orientale
Largo Donegani 2/3, 28100 Novara, ITALY

and must contain the following documents:

- Filled out and signed original Enrolment Form;

- Proof of identity (identity document or colour scanned copy of the passport, all pages);
- A legalised ORIGINAL* (AND ORIGINAL certified translation if the document is not issued in English) of university diplomas;
- Declaration of value**;
- A legalised ORIGINAL* (AND ORIGINAL certified translation if the document is not issued in English) of official Transcript/Academic Record;
- Originals of the Reference Letters submitted for the application;
- A signed copy of the Student Agreement;
- A scan of the Italian fiscal code or a filled out and signed form for the request and release of the fiscal code (modello AA4_8);
- A proof of payment of the participation costs for the first year. The amount is 4500 € and should be paid in full;
- Two passport type photos.

* Please note that an ORIGINAL is a document certified by the institution awarding the degree. Some Universities provide graduates with more copies of their diplomas, one of which is considered the original and other certified copies. In this case, the certified copy stamped and signed by the institution awarding the degree is considered an ORIGINAL.

** The “dichiarazione di valore” (declaration of value) is an informative document describing the qualification awarded to a given person by an institution belonging to an education system other than the Italian system. It is used by the competent University offices to assess a given qualification for the purpose of admission to a degree programme or for recognition of the foreign qualification. It is usually issued by the Italian Embassy in the country where the qualification was awarded. It generally contains the following information: legal status and type of issuing institution; access requirements for the programme resulting in the qualification; legal duration of the study programme and/or overall commitment required of the student in terms of credits or hours; value of the qualification in the system/country where it was issued, i.e. for academic and/or professional purposes. The declaration of value can be replaced by:

- a Diploma Supplement, based on the European Commission form, for academic qualifications awarded by institutions in countries in the European Higher Education Area (Bologna Process). Those wishing to enrol in a second cycle degree programme are not required to submit a certificate listing the exams or the syllabus;
- attestations issued by ENIC-NARIC centres that contain all the information usually listed in the declaration of value and necessary for the evaluation of the degree.

Annex III – Named Personnel

The Programme Director for UMH for the year 2019/2020 is Prof. Asia Fernandez Carvajal;

The Programme Director for UNAMUR for the year 2019/2020 is Prof. Jean-Pierre Gillet;

The Programme Director for HU for the year 2019/2020 is Prof. Joachim Fluhr;

The named academics for UPO for the year 2019/2020 are:

- Prof. Armando Genazzani, Programme Coordinator;
- Prof. Tracey Pirali, Programme Director at UPO.

The named Programme Administrative Project manager for 2019/2020 is Dr. Chiara Gabellieri (UPO).

The above persons shall be intended as automatically reviewed unless a formal communication is received by December 30th of the previous year, as mentioned in the Consortium Agreement.

Annex IV - Student Agreement

Annex V: Budget Table and Funding Rules

... Omissis...