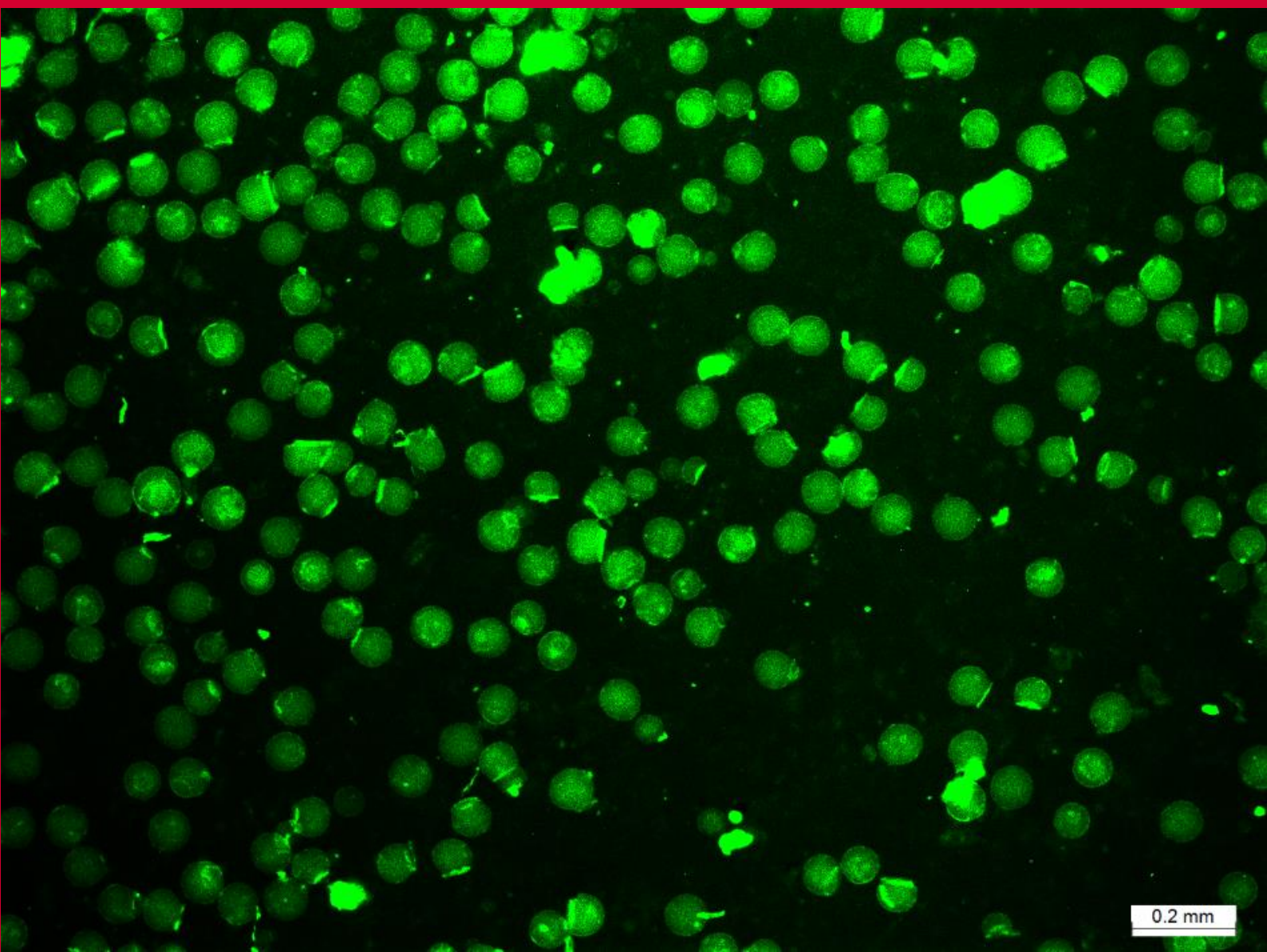
University of Reading

ERASMUS+ International Credit Mobility Project

2016-1-UK01-KA107-023688



Front image: Laura Khamkhash. Polymer microparticles produced by electrospraying technique.

Other images: Professor Vitaliy Khutoryanskiy.

Project

International Credit Mobility: 2016-1-UK01-KA107-023688

Beneficiaries

- University of Reading. United Kingdom
- Nazarbayev University, Kazakhstan

Project lead

Professor Vitaliy Khutoryanskiy - Professor of Formulation Science, Reading School of Pharmacy, University of Reading, UK.

Erasmus+ project outline

The project funded was a 26-month Erasmus+ Key Action 1 International Credit Mobility (ICM) project running between 01/06/2016 and 31/07/2018.

The project's aim was to provide framework and support to enable the mobility of staff between the University of Reading in UK and Nazarbayev University in Kazakhstan. It was envisioned and led by Professor Vitaliy Khutoryanskiy - Professor of Formulation Science in the Reading School of Pharmacy. It was supported by academics from the Department of Geography & Environmental Science[1] – Professor Anne Verhoef and Dr Maria Shahgedanova, both of whom had links to Kazakh HE.

[1] Part of the School of Archaeology, Geography & Environmental Science (SAGES)

The project aimed to build upon nascent links between the UoR and NU in order to develop academic collaborative activities for the mutual benefit of both institutions. Namely:

- to support NU in its developments in postgraduate education at EQF level 8
- to expand UoRs research and educational links in order to establish closer long-term academic cooperation with NU

The project aimed to allow a collaborative approach to establish the best practice in graduate procedures and training at NU through exchange visits of academic and administrative staff with UoR at Reading School of Pharmacy and GES supervisory and research training activities.

The activities undertaken were:

- Supporting x18 staff mobilities between Nazarbayev University to the University of Reading
- UoR hosting x14 NU staff receiving training in the School of Pharmacy and Department of Geography & Environmental Science. Most were junior and relatively inexperienced staff, undertaking a range of technical roles at NU who came to UoR in order to gain knowledge and experience that can be brought back at NU;
- UoR hosting x1 NU staff teaching at the School of Pharmacy at UoR.
- NU hosting x3 outward teaching mobilities from UoR

Through two-way mobilities the Erasmus+ KA107 project will have helped staff at NU to gain accelerated knowledge and experience in PhD supervision, delivery of courses and modules aimed at improving transferable skills of PhD students, sharing teaching experience and best practice between academic staff of both universities.

Project Detail:

Funds awarded by the European Commission to support the Project:

- Project Total Amount Granted: € 98,838.00
- Project Total Amount Utilised: € 96,402.00
- Percentage Utilised: 97.5%

Project was funded by the Erasmus+ programme of the European Union.

Participant breakdown:

	Total Number of Participants	University of Reading	Nazarbayev University
Student	0	0	0
Staff	18	3	15
Total	18	3	15
	Activity	University of Reading	Nazarbayev University
Study (SMS)	0	0	0
Teaching (STA)	4	3	1
Training (STT)	14	0	14
Total	18	3	15

Participant Feedback:

	% of staff that reported an improvement	
Competence	Staff mobility teaching	Staff mobility training
I have built cooperation with players in civil society	50%	64.29%
I have built cooperation with players in the labour market	75%	42.86%
I have enhanced my employment and career opportunities	0%	92.86%
I have enhanced my organisational/management/leadership skills	50%	100%
I have experimented and developed new learning practices or teaching methods	50%	85.71%
I have gained sector-specific or practical skills relevant for my current job and professional development	75%	100%
I have improved my competences in the use of Information and Communication Technology tools (e.g. computer, internet, virtual collaboration platforms, software, ICT devices, etc.)	n/a	78.57%
I have improved my foreign language skills	n/a	92.86%
I have increased my job satisfaction	100%	92.86%
I have increased my social, linguistic and/or cultural competences	n/a	100%
I have learned from good practices abroad	75%	100%
I have reinforced or extended my professional network or built up new contacts	100%	100%
I have reinforced the cooperation with the partner institution	100%	100%
Percentage of staff who were very satisfied or rather satisfied with their mobility experience in general	100%	100%

Examples of Training projects undertaken

- Training in poorly soluble drug characterisation, UV spectrophotometric measurements and methods of improving their solubility
- Training in formation of host-guest complexes between drug molecules and various container molecules (e.g. cyclodextrins and crown ethers), training in the use of NMR spectroscopy to characterise the structure of host-guest complexes
- Training in drug penetration through animal mucosal tissue

- Training in micrometeorology, hydrometeorology and environmental physics, including application of sensors in micrometeorology and soil physics, application of water and energy balance models.
- Training on use and potential of technical equipment e.g. Water Isotope Analysed, Laser Granulometry, Infiltrometer.
- Training in synthesis of microparticles using Pickering emulsion technique
- Training on Spraybase Electrospraying Instrument
- Optimise instrumental and experimental processes for preparation of polymeric formulations
- Training on Fluorescent Stereo Microscope
- Training in Characterisation of Alginate-Chitosan formulations by Fluorescence Microscope
- Induction in safety training
- Bid /proposal writing
- Converting data to models
- Developing skills in data analysis, visualisation of climate data application of hydro and agricultural models
- Training in data analysis and data visualisation software
- Training in the synthesis of nanomaterials
- Training in physicochemical characterisation of nanomaterials using dynamic light scattering, infra-red and Raman spectroscopy, and Ellman's assay
- Studies of nanoparticle retention on musosal surfaces
- Training in the synthesis of ionic polymers and their characterization using Nuclear Magnetic Resonance (H-NMR), gel permeation chromatography (GPC), Fourier Transform Infrared Spectroscopy (FTIR) and so on.
- Climate modelling, climate change scenarios

Project Lead statement

This Erasmus+ International Credit Mobility project was very successful and helped to establish links between the University of Reading (United Kingdom) and Nazarbayev University (Kazakhstan).

The project helped to share good practice in teaching and research at both Institutions, in a number of academic disciplines. It provided training to early career researchers in a number of areas, including many research instrumental techniques, generic and foreign language skills and advanced methods of teaching. Senior researchers involved in this project had an opportunity to establish mutual research interests and collaboration in several areas. The project facilitated cross-fertilisation of research ideas and expanded networks of professional contacts. It also provided an opportunity to increase cultural awareness and to establish complementarity in several areas of research and research infrastructure (e.g. availability of unique research equipment at both institutions). It is planned that the International Credit Mobility project will act as a spring-board for future academic cooperation between our institutions,

I would like to thank all colleagues who helped in making this Erasmus+ project a success, both at Nazarbayev University, the University of Reading and within the Reading School of Pharmacy and Department of Geography and Environmental Sciences.

I would like to thank also the European Union who funded the Erasmus+ project, without which the mobilities and activities undertaken within the project would have never have taken place.

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Reading School of Pharmacy

Erasmus+

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