




Developing Academic Based Tourism in the World in the 2020s: Historical Dimension and Perspectives

Larisa Mikhaylova^(✉) 

Journalism Department, Lomonosov Moscow State University, Moscow 125009, Russia
larmih@gmail.com

Abstract. Importance of academic tourism for national economies receives a growing recognition in European countries. But in long-perspective its influence will become greater still, especially as students, who participated in higher education mobility eventually will be acquiring positions of more responsibility in their countries of origin. Besides being an economic factor, its potential in all spheres of life will grow. The paper classifies the predominant forms of academic tourism in the world at present on the basis of research literature and delineates potential nodes of growth as observed in practice in the 21st century.

Keywords: Academic tourism · Student mobility · Cultural exchange · Research cooperation · Globalization · Glocalization · Fulbright program · Russian Society of American Culture Studies · Science Fiction Research Association

1 Academic Tourism as a Stimulus for Economic and Cultural Growth

History demonstrates it clearly that when a progressivist government aims at ameliorating the economic situation in the country significantly, a large group of youth is sent abroad to learn from the best practices available. If these students are observant and studious enough, they successfully finish the course and return home ready to implement some of the principles and ways they observed. If allowed to do that they bring changes which boost economy significantly. We can name two such distinct periods in the history of Russia: in the beginning of the 18th century (during the Peter the 1st rule), bringing a great expansion of the territory, progress in ship-building, industry growth, and in the 1920–30s, after the Socialist Revolution. Such examples can be found in many countries of the world and different historic periods. Essentially, Universities served as civilization growth centers.

We need here just to point out this fact without going deeper into the specifics, stating that academic tourism is not a new notion at all and in fact, it was one of the moving engines of the world for centuries.

Although it happened throughout the centuries, only in the modern era it started to be considered academic tourism, developed and studied as such. The leading factor

in such an acknowledgement was growing democratization of higher education. In the 20th century, especially after World War II, there emerged an institutionalized practice of promoting and developing academic exchanges in the form of international agreements – both from the Western side of the world and from the Soviet side. American Fulbright program is the most well known one, we'll return to it in the next paragraph. It is also important to remember the efforts of the USSR through international agreements with newly formed states of decolonizing Africa, as well as Latin American and Asian countries to offer higher education to their citizens and thus to promote their development and establish better understanding. It was called Friendship University and named after Patrice Lumumba, UDN for short. Its opening was announced in Jogjakarta during the visit of N. Khrushchev to Indonesia in 1960 [1]. During the existence of the USSR, UDN trained, free of charge, teachers, engineers, agricultural experts, doctors, lawyers, economists, and other specialists who would return to their home countries and contribute to their development. Over 15 000 graduates completed the program during the 30 years [2, 3]. It was the first such University in the Soviet republics, and its experience, both positive and negative (for example, relatively high percentage of students not finishing the course) was later taken into account by schools in Ukraine (Kyiv, Kharkov)/Belarus and Kazakhstan [3, 5].

As Tobias Rupperecht keenly observed: “In addition to being a unique site of Second World-Third World encounter, the university was a symbol around which debates over imperialism, modernity, and development emerged” [4]. Thus UDN not only worked as an institution of higher education, but as a place encouraging interchange of worldviews.

1.1 Fulbright Exchange Program as a Model for Bringing Changes

The model developed as the academic grant program was first introduced by a senator Fulbright in 1946, proved its resilience and continues to impart stimuli for development of innovative approaches by the scholars. Fulbright experience became a bracket description for the entirety of the influencing factors during the exchange and results of the several months' participation in research or teaching at American Universities for foreign scholars or abroad for Americans. One of the first books where such stories were compiled - 'The Fulbright Experience, 1946–1986: Encounters and Transformations' with a foreword by the program initiator James W. Fulbright. He specially stressed that the aim of the program was to create another way of thinking, based on personal acquaintance with the ways of people in another country, demolishing the pervasive image of an incorrigible foe, especially in relations between the USA and the USSR: “Higher education, especially cross-cultural education exists to help students and scholars learn, not only for themselves but for all of us. ... As they acquire an understanding of what the two great powers are concerned about and why, they will recognize that in this nuclear age competition must give way to cooperation if both powers – and the world – are to survive” [6, p. xv].

Exchanges of the 1980s brought up many changes indeed. Recently in Russia there was published an account [7] about an initiative of Soviet high school students that originated as a result of the first joint sociological public opinion research on nuclear weapons conducted by Eric Chivian, IPPNW organizer, and Institute of the USA and Canada studies in the USSR in 1986. Not only the school students from Maryland in the

Table 1. Positive effects of the Fulbright experience on Turkish scholars in 1997. Source [8, p. 108]

	Researchers = 149		Students = 119	
	N	%	N	%
I changed my way of teaching	69	48	48	40,3
I stimulated the restructuring of the department curriculum	67	45	55	46.2
Some changes occurred in working relationships	37	24,8	47	39.5
I started a new research program	59	39.6	18	15.1
I started a program in coordination with a foreign department	41	27.5	13	13.4
I helped in developing Turkish-American relationships	31	20.8	17	14.3
Positively changed working relationships with colleagues	29	19.5	27	22.7
I played an effective role in restructuring my institution	24	16.1	22	18.5
I founded a new laboratory at my department	17	11.4	15	12.6
I formed a new research center or research group	15	10.1	10	8.4
I transferred a new technology and developed it	15	10.1	10	8.4
I was awarded a prize	5	3.4	8	6.7
I started to work in a new branch of art	4	2.7	4	3.4
I created a new technology and developed it	3	2.0	2	1.7
I developed a new project and/or taken a patent	6	4.1	3	2.5
I started an economic/social service introducing a reform	4	2.7	2	1.7

USA Tambov and Rostov in the USSR strongly opposed the possibility of implementing nuclear weapons, later another group of young people from California and Moscow after a massive letter exchange (the tone being ‘I want to grow up, not to blow up’) managed to stimulate the countries’ leadership to reach an agreement on limitation of the missiles - such was the public environment when The Intermediate-Range Nuclear Forces (INF) Treaty was signed in 1987.

Besides an overall mission of academic exchanges, results of the Fulbright program are in fact very versatile, which can be shown by the detailed analysis of the outcomes for the Turkish participants in the end of the 20th century by C.E. Demir et al. [8] in Table 1. All of the positive outcomes produced change either in the methods of research, curriculum development, or introduced changes into working relationships with colleagues and students, helped developing new products and services, thus spreading effect of academic studies into the environment beyond the University walls.

In addition to doing research, the Fulbright scholars also have an opportunity to share the results with other Universities and cultural centers of the US through the Diversity program. It helps both to showcase the results and also to plunge into a variety of communities in different States, giving the opportunity to feel the current cultural mosaic of the United States of America both intellectually and emotionally, as happened in my particular case, when I was on a research fellowship at University of Wisconsin in 2005. The themes I suggested for the lectures were connected to the study of superheroes, which interested the University of California in Riverside, and with the activities of our Society of American Culture studies, which was chosen by Montana State University for the meeting of Native American Tribal librarians. The trip there by car acquainted us with interstates and rest stops, while driving through Minnesota, South Dakota, Wyoming, Montana, Idaho, California, Nevada, Arizona, Colorado, Nebraska, Iowa and Illinois. And of course, many places on that route were marked by meetings with people, coloring the names of the places with faces and attitudes.

Important part of the Fulbright research program for senior scholars is the possibility to bring your family, which widens the scope of exposure to American culture significantly. My two younger children attended school in Eau Claire, WI, which put us into the thick of life in a small city. Children also went on a trip through the country with us, talking in the sights of the road, the beauty of National parks - from the Black Hills and Badlands, through Yellowstone, Sequoia National Forest, Grand Canyon and Canyon de Chelly...And what was no less important for their understanding of America - observing Americans that helped us on the way as we had plenty of car problems: AAA mechanics, a minister of a Vineyard church at Albert Lea, MN, where our first car broke, and his parishioners who tried to repair that van. The minister vouchsafed for us - quite possible that the status of a Fulbright scholar helped - and we got another car, which brought us to Sierra Nevada, but broke there. Another meeting with a policeman that transported us after the accident to Sonora where a local person, who before had experience with helping orphanages in Russia, again vouchsafed for us and we got the third van that eventually brought us back to Wisconsin without major problems.

After the lecture, the librarians of the University of California at Riverside showed their wonderful Eaton collection of 200 000 fanzines (fan magazines), and later I managed to arrange for a longer stay there, found there formerly unpublished early poem by Ray Bradbury, translated it together with my student into Russian and printed it in the magazine *Supernova* (www.snovaf.com). My research on Russian trekkers (fans of the TV show *Star Trek*) in a couple of years was published by Eaton Journal of Archival studies [9], thus acquainting the international scholars with the cultural interaction based

on images of American popular culture. Literary and Film tourism in the USA is a growing sphere of research [10], and I was glad to be able to add unique observations to this branch of scholarship.

All that became possible because of the forward-looking model of academic tourism designed by the Fulbright program.

1.2 International Academic Associations: Traditions and Initiatives

Another important actor in the field of academic tourism are International academic associations which promote original research and also make significant efforts to support graduate students participation in their work through targeted grants and awards for the best article by a graduate student in their publications. Here I shall be touching on the successful experience in this field of the associations I had the honour to be a member of for many years.

The first one I would like to mention is Science Fiction Research Association (SFRA, <https://sfra.org/>). SFRA charter is characterized by democracy, regular rotation of executive positions, opportunities for all the members to take part in many award committees promoting excellence of research.

It was established in 1970 in the USA, but from the start, it encouraged international membership due to the global character of the studied phenomenon and to the maximum openness of the organizations' leading executive approach. Such attitude brought several SFRA members to Moscow during the first International meeting of science fiction writers in 1987. Besides signing a joint proclamation against nuclear threat [11], the participants discussed the necessity to promote academic studies of science fiction and its introduction into the Universities curricula. By then I was giving a course in science fiction history at Journalism department of Moscow State University for six years and shared the observations mentioning a great deficit of access to relevant research. It immediately sparked the suggestion on the part of Elizabeth Ann Hull (a wife of Frederick Pohl and one of the leading promoters of international cooperation in SFRA) to become a sponsor for a foreign member, and I started to receive regular publications – SFRA Review, Extrapolation. These materials helped in the times before Internet to keep in pace with the field and later to organize a science fiction magazine in Russian, which helped to close a large gap in knowledge.

Besides fulfilling its direct goals, SFRA helps founding and development of associations in other countries. Our Russian Society for American Culture studies was established in 1998 and built with SFRA as a model. Though financially we could not implement many of the aspects of its activities, we maintained the leading goal – to withstand propagandist bias in our research and give academic platform only to research based on fact. The importance of such an approach can hardly be overestimated taking into account the present climate in Russia. Elizabeth Ann Hull and Frederick Pohl also brought academic attention to China, spearheaded the organization of the first Beijing International Conference on Science Fiction: China '97 in 1997, promoted translation of Chinese SF into English. At present Chinese science fiction culture became a prominent feature of contemporary China [12] that helped Chengdu to win a bid for Worldcon – the main event in the sphere of science fiction – for 2023.

Academic tourism does greatly depend on international situation in general. Therefore, academic organizations have vital reasons to act as active agents in supporting progressive movements and opposing aggression through their own programs and grants for joint research, producing solid data as the result. Such is, for example, a position of the European Association of American Studies (<https://eaas.org>). When the real effort is applied, the results can fetch genuine revelations, as happened with the World Hobbit project in 2013–2014. It brought together researchers from 46 countries and produced a 29-question survey in 34 languages that got more than 34000 answers. The project was initiated by Dr. Martin Baker and supported by British Academy with the overarching question: “How do films which originate as an English children’s story acquire meaning and value for different audiences across the world?” [13, p. 160]. Materials published in a special issue of the journal on audience studies showed that many viewers closely relate the story with their cultural and political environment and in escaping from negative aspects of reality look predominantly for moral support. It appeared true not only for the Russian audience, which was studied by our research group [14], but also for German, Austrian and several other countries. It puts forth solid research against stereotypical views on the role of fantastic in the modern world.

The more the world gets divided the more acute becomes the need for unbiased cooperation of scholars. Therefore, I believe it is imperative for the present to establish such joint projects on a rolling basis. The way to go may be through National and international academic associations, but also, possibly, through newly established networks supplementing the previously existing research institutions. As an example, I can name DICE network (<https://dicenetworkeaas.wordpress.com/>) that originated in 2022 within EAAS as a network of Decolonial, Indigenous, and Critical Ethnic Studies to give a boost to diversity understanding a looking for ways to overcome growing contradictions.

There is also a practically untapped source of collaboration for academic institutions and associations with the tourism organizers to counteract the propagandistic, sometimes quite vicious trend of interpreting history and cultural impact of different groups of people living in the countries throughout the ages. It can be observed during regular tourism, in such countries as Türkiye, for example, where all previous civilizations before Roman Empire are reduced to vague ‘locals’ occasionally blessed by the presence of characters known from the Bible. Archaeology today has developed new techniques allowing to make the map of civilizations interactions more exact, for example with the help of ancient DNA [15]. So the possible way to help make relations between people better is through introducing such new research into the actual tourist guide programs. It may work, especially if the guides are graduates of the local Universities but capable to interact with the tourists in their own language, as could have been observed in Tunisia in 2017 during the trip there.

2 Cultural and Academic Tourism: Intersections

Activities of our Russian Society of American Culture Studies brought us in contact with Dr Ida Rochani Adi from Gajah Mada University. She came first to Moscow and later invited me to tell about our research at the American Studies International Conference (ASIC) in 2018 “Local Identity in Globalization” and to teach a short graduate course



Fig. 1. Leaflet for Sintren Luwajawa Festival. Open sources.

in American studies from a transcultural perspective. It was invigorating to witness the success of various projects where Indonesia was promoting local experience for global community.

During the ASIC I got invited by one of the participants Nisa Roiyasa to a Sintren festival in Luwajawa, a durian and coffee growing village in Central Java (Fig. 1). Besides an intriguing possibility to witness a somewhat mystical ritual of personality change during the dance, it was also an opportunity to see the result of ‘community empowerment through ‘good’ tourism’. It was a motto of Bachtiar Tedjo and his Hidora NGO [16] that is aiming at a much more complex goal than just organizing a festival and inviting there guests – it strives to help young people to return to their villages by exploring the potential of the village for cultural tourism. Thus it became possible to witness how academic tourism intersected with cultural tourism and take part in it, as the guests – mostly students from European countries also shared their art during the festival with villagers. And villagers shared their houses and food with the guests.

Besides performances, the festival also included a discussion between the organizers and students of a madrasah about local traditions predating Islam. It was interesting to observe, as the mullah was unorthodox and encouraged the students to include into the reasoning the role which such rituals played for the local people, basically - whether it was making better or worse their quality of life morally.

From the overall impression, Luwajawa definitely could benefit from more tourist attention to their traditions, and was capable to provide food and housing on a modern level – the majority of houses in the village were from stone and built with distinct local design with modern amenities. But what if more frequent visits could damage its environment beyond repair, as it sometimes happens? What should be a balance between preservation and development? All these factors are very important for a long-term perspective and development of a sustainable academically based local culture tourism, as was shown, for example, by Anna Pudyanti et al. in an article “A Comparison Study of Tangible and Intangible Cultures as Commercialisation Process of Tourism Village in Yogyakarta and Culture” [17, 18] and for several other regions in Indonesia by Hernanda et al. [19]. It is no less important for other parts of the world, even those which have

an opportunity to attract the funds of larger organizations such as European Cultural Tourism Network (<https://www.culturaltourism-network.eu/>). A thorough research into festival based tourism by V. Stankova and I. Vassenska demonstrated it on the example of Bulgaria [20].

If we compare the research done on the material of European, African and Asian cultural tourism published in the 2005 [21] and more recently, we definitely see a stronger focus on empowerment of local citizens of the villages which become involved in the programs. Thus including the young members of the community into the permanent committee on planning the activities, in practice of organizing not only the peers' participation but the overall event (as was the case in the Luwijawa festival) serves also as a school for responsibility, eventually empowering the participants. Tourists visiting the places ideally should also be able to make a contribution through participation in discussions facilitated by academics and local people. The model of follow up analysis implemented usually by research teams after observation in the field could serve here as one of the variants.

3 Conclusion

As we can read in the international European and United Nations documents, "Sustainable Cultural Tourism is the integrated management of cultural heritage and tourism activities in conjunction with the local community, creating social, environmental and economic benefits for all stakeholders in order to achieve tangible and intangible cultural heritage conservation and sustainable tourism development". (European Commission DG EAC, OMC Report 2019).

Also, "Sustainable Tourism is tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities". (UNWTO).

Academic tourism is considered by a growing number of scholars the most sustainable branch of tourism, 'a segment on the rise' [22, 23]. Besides internal factors (such as influence of student's families, or of their regions of origin) and external - attributes of the host countries, the growing number of foreign students also produces effects on destination countries, which become the focus of recent research [24]. Destinations for academic tourism at present are definitely including countries that were before more on the end of dispatching their students abroad.

Participation in various typed of connected types of tourism, Literary and Film included, will grow, as globalization glocalization will continue to develop hand in hand. But the most valid and impactful trend could become Eco-Tourism, including eco-building projects.

A science fiction writer Ivan Yefremov in the novel "Andromeda Nebula" [25] looking into the distant future saw as essential that all young people would chose for their graduation project the one that would benefit the environment and the culture of the region they studied the most, calling them Hercules Feats. So perhaps the time has come for the academic programs to lead young people of the Earth now to take part in such projects that would help us to ensure the better future for the planet. There definitely exists ample research, the need for such projects is dire, we can observe the will of the

young people to overcome the challenges the world faces at present in the movement struck by climate change. Such creative and constructive eco-tourism could become the leading trend in academic tourism in the very near future.

Acknowledgements. My great thanks should go to the organizers of Fulbright program, SFRA and EAAS members, personally to Elizabeth Ann Hull and Frederick Pohl, and to my husband and children, without whom any of the research could not have happened. In addition, I should extend my gratitude to Dr. Ida Adi, her students and colleagues who introduced me to Indonesia and its cultures.

References

1. Kret; A.J.: "We Unite with Knowledge": The Peoples' Friendship University and Soviet Education for the Third World. *Comparative Studies of South Asia, Africa and the Middle East* 33 (2): 239–256 (1 August 2013). <https://doi.org/10.1215/1089201X-2322516>
2. Rosen, S M.: *The Development of Peoples' Friendship University in Moscow*. Office of Education, Institute of International Studies, Washington DC (1973).
3. Katsakioris, C.: The Lumumba University in Moscow: Higher education for a Soviet–Third World alliance, 1960–91. *Journal of Global History* 14(2), 281–300 (2019), <https://doi.org/10.1017/S174002281900007X>
4. Rupperecht, T.: *Stranded Flagship 50 Years of People's Friendship University in Moscow*. *Osteuropa*. 60, 95–114 (2010):
5. Androsova, D. *Obucheniye studentov iz sotsialisticheskikh stran v VUZah SSSR (1956–64)*. *Vestnik RGGU. Seria Politologia.Istoriya. Mezhdunarodnye otnosheniya* 7(87), 108–116 (2012). (D.Androsova. Educating the students from socialist countries in the Soviet Universities (1956–1964). *Vestnik RGGU. Seria Politologia.Istoriya. Mezhdunarodnye otnosheniya* 7(87), 108–116 (2012))
6. Dudden, A.P., Dynes R.R. (Eds): *The Fulbright Experience, 1946–1986: Encounters and Transformations*. Transaction Books, New Brunswick and Oxford (1987).
7. Popov, N.P.: *Rossiya-America: pryamaya svyaz. Vospominaniya americanista i sovetologa*. KnigIzdat, Moskva (2020). (N. Popov, *Russia-America: Direct Connection. Memoires of an Americanist and Sovietologist*. KnigIzdat, Moscow (2020). <https://doi.org/10.32986/978-5-4492-0119-5-394-2020-06>
8. Demir, C. E., Aksu, M, Paykoç, F.: Does Fulbright make a difference? The Turkish perspective. *Journal of Studies in International Education*. 4 (1), 103–111 (2000)
9. Mikhaylova, L.: *Shore Leave Russia: Star Trek Fandom Creativity in Russia*. *The Eaton Journal of Archival Research in Science Fiction*:4 (1), 52–57 (2016).
10. Baleiro, R., Pereira R. (Eds.). *Global Perspectives on Literary Tourism and Film-Induced Tourism*. IGI Global (2022). <https://doi.org/10.4018/978-1-7998-8262-6>
11. Gribachev, Yu.: *O budushchem radi nastoyashchego. Zametkis mezhdunarodnoy konferentsii pisatelei-fantastov*. (Yu Gribachev, *About the future for the sake of the present. Notes on the international conference of science fiction writers*) *Literaturnaya Rossia (M.)*.-38 (1286), 7 (1987). http://www.fandom.ru/convent/50/konfer_1987_4.htm last accessed 2022/08/28.
12. Wang R.K.: *Chinese SF Industry*. *Vector* 293 (April 2021), <https://vector-bsfa.com/2021/04/02/chinese-sf-industry/> last accessed 2022/08/28.
13. Baker M., Matthijs, E.: Introduction; The World Hobbit Project. *Participations. Journal of Audience & Reception Studies* 13(2), 158–174 (2016).

14. Mikhaylova, L., Pronina, E., Knyazeva, M. and I. Novitskaya. Search for moral support, or escape from reality? Media psychological analysis of the Russian segment in the World Hobbit Project database. Participations. *Journal of Audience & Reception Studies* 13(2), 406–429 (2016).
15. University of Cincinnati. DNA analysis shows Griffin Warrior ruled his Greek homeland: The Bronze Age leader was from the region he would come to rule. *ScienceDaily*, 25 August 2022. <https://www.sciencedaily.com/releases/2022/08/220825163957.htm> last accessed 2022/08/29.
16. Video HIDORA. A collection of videos of Hidora's activities, both from Hidora's own production videos and from media coverage and the Regency Government. https://www.youtube.com/playlist?list=PLfe0vlz31nnhxq0Uv_fxdVnRPtzeqbY7W last accessed 2022/08/29.
17. Rudwiarti, L. A, Pudianti, A, Vitasurya, V. R.: A Comparison Study of Tangible and Intangible Culture as Commercialisation Process of Tourism Village in Yogyakarta. *E-Journal of Tourism*, 71 (2017). <https://doi.org/10.24922/EOT.V4I2.36398>
18. Wiranatha A.S et al. (Eds). *Proceedings of International Tourism Conference: Promoting Cultural and Heritage Tourism* Udayana University, Bali (2016).
19. Hernanda, D. W., Mindarti, L.I., Ryianto R.: Community Empowerment Based on Good Tourism Governance in the Development of Tourism Destination (Case Study of Kawah Ijen Tourism Buffer Zone Kampung Kopi Gombengsari Village, Kalipuro District, Banyuwangi Regency) *Journal of Indonesian Tourism and Development Studies* 6 (2), 128–135 (2018). <https://doi.org/10.21776/ub.jitode.2018.006.02.08>
20. Stankova; M., Vassenska, I.: Raising cultural awareness of local traditions through festival tourism. *Tourism & Management Studies* 11 (1), 120–127 (2015).
21. Smith M., Robinson, M. (Eds): *Cultural Tourism in a Changing World Politics, Participation and (Re)presentation*. Channel View Publications, Clevedon • Buffalo • Toronto (2005).
22. Rodríguez, X., Martínez-Roget, F., Pawlowska, E.: Academic tourism: A more sustainable tourism. *Regional and Sectoral Economic Studies*. 13 (2), 89–98 (2013).
23. Rodrigues Soares, J.R.; Academic Tourism: A Segment on the Rise. In: Batabyal D., Dillip, K.D. (eds.) *Global Trends, Practices, and Challenges in Contemporary Tourism and Hospitality Management*. IGI Global, pp. 233–247 (2019). <https://doi.org/10.4018/978-1-5225-8494-0.ch013>
24. Martinez-Roget, F., Rodriguez, X. A.: Academic Tourism: Conceptual and Theoretical Issues. In: Cerdeira Bento, J.P., Martinez-Roget, F., Pereira, E.T., Rodriguez X. A. (Eds.) *Academic Tourism: Perspectives on International Mobility in Europe*, pp. 7–20. Springer, Heidelberg (2020). https://doi.org/10.1007/978-3-030-57288-4_2
25. Yefremov, I.: *Andromeda Nebula*. TSK Group LLC (2014). <https://www.amazon.com/Andromeda-Nebula-Ivan-Yefremov-ebook/dp/B00J2I0A6K> last accessed 2022/08/29.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

