Capacities/Research Potential
FP7-REGPOT-2012-2013-1

Project No. 316254
BASTION

"From Basic to Translational Research in Oncology"

Deliverable D7.1

Report
Final report from evaluation by external experts

Project start date:	1.09.2012
Project duration:	42 M
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All reports are available on BASTION Webpage: http://bastion.wum.edu.pl/en/raporty/

Deliverable no D7.1 presents final report from evaluation by external experts and consists of the report presented by evaluators the during the Round Table meeting which was held in Medical University of Warsaw on 22nd February 2016. The last page of the report is a copy of the paper version with the signatures of the evaluators.

The detailed description of the meeting has been presented in the Deliverable D6.9.

BASTION Final Evaluation Report

The material presented in this report is based on two project evaluations that lasted two days during the following dates: first visitation: 29-30/01/2015, second visitation 16-17/12/2015; as well as presentations which were delivered by the BASTION team and the administrators of MUW on the 22nd of February, 2016.

1. Introduction

Each project evaluation lasted 2 days. Before the first evaluation, the committee was presented with written materials prepared by the BASTION team that included Annexes IA and B (description of the project) and the 1st period report. However, the mentioned materials contained activities accomplished between 01/09/2012 and 28/02/2014 only, and therefore, did not include most of what was accomplished till 29/01/2015. Thus, the review committee was informed of these additional developments at the review date verbally, and also via additional documents provided at a later date, which together formed the basis of the first report delivered by the review committee to the BASTION team.

The first project evaluation consisted of oral presentations summarizing of the state of the art of the Medical University of Warsaw (MUW) and projects undergoing within the University, as well as detailed sessions on the progress within each work package (WP) included in BASTION. The second day included site visitations and the inspection of the new infrastructure, as well as talks given by the newly recruited BASTION scientists summarizing the scientific work performed within the BASTION umbrella.

During the second review, the BASTION team leaders gave talks and presented the committee with additional written documents which included the 2nd period report, a policy paper and documents describing deliverables D1.2, 1.3, 2.2, 2.3, 2.5, 2.7, 2.9, 2.10, 3.2, 3.4, 3.6, 3.7, 5.3, 5.4, 5.5, 5.6, 6.2, 6.3, 6.4, and 6.6; thus concluding all work related to this project.

The first day consisted of an overview of the previous report and related recommendations followed by talks summarizing developments and deliverables presented at the conclusion of each work package (WP). The second day of the evaluation was dedicated to discussions and report generation by the review committee.

As detailed below, the committee agreed that the WPs were completed as promised successfully. Further recommendations are summarized at the end of this document.

2. State of the art and REGPOT contributions to the potential of this institution.

Based on the documents provided to the report committee, it was evident that the MUW employed on average 1278 (1123 to 1398) researcher scientists during 2011 to 2014, spread among the divisions of the "1st medical", "2nd medical", pharmacy and public health divisions. BASTION made possible the employment of 23 researcher scientists thus far. The MUW has several ambitious projects in the working, which include the CePT (center for preclinical research and technology) project, which is expected to bring in funding in the range of 100 million Euros. Another investment that has realized is the pediatric hospital which cost about 250 million Euros, and an additional CePT that is planned to focus on several themes is in being prepared. As explained by the Rector of MUW, the University is planning the realization of an incubator for scientific entrepreneurs and/or an "academic center for clinical studies" which would have the support of several biotech companies. Institutes of dentistry and psychiatry, as well as one for proton therapy are in the planning. Most importantly the University has undertaken the initiative to pay for patent attorney costs for scientists willing to file for IPRs. We were told the incentive to do this was also partially due to the fact that BASTION researchers applied to several patents as a result of their projects.

The BASTION team explained their willingness to present to the University administration a detailed list explaining factors that hampered scientific development during this project, thus aiming to help ease similar factors that could be encountered in future projects. The team also voiced their wish to see project overheads shared with scientists as currently these are used for infrastructure support exclusively. However, as detailed below, 90% of scientists employed through BASTION are currently employed at MUW or another institution where (we are told) they are willingly collaborating with the MUW scientists, which to us reflects their appreciation of the quality of the "post-BASTION" MUW.

Throughout the project the BASTION team authored 212 publications and 4 book chapters. 48 of these were authored by post-doctoral fellows employed through the project. Publication numbers compared to the 2009-11 period increased about 65% during the BASTION project for team members.

During BASTION, the team members secured 51 grants from various sources, the most important which is an E.C. sponsored H2020 "STREAM" (Strategies towards Excellence in Immuno-Oncology) Twinning grant to the MUW that will be coordinated by Prof. Jakub Golab. Both the experience and know-how from BASTION is expected to be transferred to STREAM which aims to establish an international, long-term, strategic partnership between MUW and its partnering institutions (University of Oxford, The Francis Crick

Institute, Oslo Universitetssykehus and International Centre for Genetic Engineering and Biotechnology).

During the duration of the project of all grant applications made only 21 (only about 30%) were unsuccessful, demonstrating the scientific strength of the researchers involved.

In summary, it is to us very clear that BASTION scientists have been able to utilize the support towards both obtaining grants as well as publications, and have been able to motivate the University administration in the correct direction.

3. WP contents and Recommendations

WP1 (Twinning through secondments)

This WP was planned to last during the first 36 months of the project. At the date of the first visitation, 42% of all the visits were completed (as calculated on the basis of person/months). Although these interactions resulted in a number of publications, (i.e. they were productive) a difficulty in the realization of incoming visits was obvious. The BASTION team explained that primary reasons why twinning activities were not being realized was because 1. The senior scientists who were invited were reluctant to come to Poland, 2. Because the teams were not immediately able to cover for direct costs of joint research projects (e.g. consumables).

At the end of the first visit, the review committee recommended that: 1. incoming visits could be exchanged with outgoing visits; 2. visitations could be split into smaller time periods and/or the incoming researchers could organize workshops or courses as an alternative to long term stay. During the second visit, the committee was presented with the data demonstrating that the BASTION team has been successful in increasing both outgoing as well as incoming scientist numbers that reached goals set for this report period. We are also told that this WP led to the establishment of at least 7 collaborative partnerships with several European institutions.

One major result of WP1 related activities is a marked contribution of BASTION members to 13 original research papers and 3 reviews. 4 manuscripts, which we are told are in preparation.

Most importantly, lessons learned from this WP were incorporated into the recent very successful STREAM application, where the team's proposal was selected the best application among all those submitted in the same period.

WP2 (Know-how and experience sharing)

This WP aimed facilitating the experience sharing process of the BASTION team with scientists and non-scientists alike, under 5 sub-aims which included the organization of

workshops (1); organization of an international conference (2); active participation in international research conferences (3); promotion of BASTION activities internationally (4) and raising public awareness of the benefits of translational research (5).

The committee realizes that many of these aims are successfully met. Among five workshops originally aimed for, all were realized before the end of 2014.

The international conference on translational oncology (TRON) was successfully held in May 2015 at which two of the reporters of this project participated as invited speakers.

Participation in international meetings seems to have been pursued successfully. In all, 34 researchers participated in 22 conferences and in at least one international conference a team member delivered a talk during this period. 50 of 52 planned participations took place successfully over the project period. All reports related to participations were made available over the web page of BASTION.

The MUW received a national award where BASTION was mentioned as being the primary underlying reason for the award, and the project web page received more than 15.000 hits during the whole project period.

All 5 workshops were successfully completed and most were very well attended (over 1000 participants). A policy paper geared to stakeholders, scientists, and the community in general was also produced. The paper aimed to generate a review based on the analysis of cancer prevalence, information, treatment options etc. in Poland and to present a strategy by which information that would lead to betterment of awareness and treatment options could be communicated to patients and individuals at risk. We are happy to learn that the ministry of health of Poland would be discussing the policies suggested in this report with BASTION members in the very near future.

Other activities included participation in the science events, organizing trainings for the journalists, cooperation with PAG's from the oncology area, cooperation with over 30 journalists (from medical and national media) resulting in over 300 publications about BASTION and other events focused in Innovation (ACES, Fulbright Association, etc.)

WP3 (Building capacity by attracting top-level scientists)

All 9 experienced scientists were successfully recruited together with one group leader during the first report period. For the bioinformatics team, two experienced scientists and two IT specialists were also recruited.

All 16 post-doctoral fellows employed via the BASTION project continued on with a successful integration pathway as summarized in the Table below where the current employment sites for those post-doctoral fellows who worked with the indicated senior scientists are listed.

Post. Doc.	Person hired for BASTION project	From the team of	Current employment
1.	MALGORZATA FIRCZUK	Dominika Nowis	Medical University of Warsaw – for additional 18 months, and two grant applications submitted to extend her employment for additional 36 months
2.	ANNA WOJCICKA	Krystian Jazdzewski	Medical University of Warsaw – permanent position
3.	MALGORZATA CZYSTOWSKA-KUZMICZ	Jakub Golab	Medical University of Warsaw – for additional 24 month months
4.	JOANNA DRZEWINSKA-CHANKO	Tomasz Stoklosa	Maternity leave and her decision to return to her home city (Lodz)
5.	IWONA SOLARSKA	hired for replacement of Joanna Drzewinska Chanko to the team of Tomasz Stoklosa	This was temporal replacement, and Iwona is now employee of the Institute of Hematology in Warsaw, but continues cooperation with the team of Tomasz Stoklosa
6.	OKSANA KOVTONYUK	Piotr Religa	Employment ended
7.	BEATA PYRZYNSKA	Magdalena Winiarska	Medical University of Warsaw – for additional 24 months. Beata is an independent group leader
8.	MAGDALENA BANACH-ORLOWSKA	Pawel Wlodarski	Position in the International Institute of Molecular and Cellular Biology in Warsaw
9.	AGNIESZKA POLLAK	Pawel Wlodarski	Medical University of Warsaw in the team of Rafal Ploski
10.	LECH TRZECIAK	Rafal Ploski	Employment ended. Rafal Ploski is seeking funds for further employment
11.	MARZENA LAZARCZYK	Zbigniew Gaciong	Medical University of Warsaw in the team of Zbigniew Gaciong
12.	RADOSLAW ZAGOZDZON	Independent group leader	Medical University of Warsaw – for additional 36 months
13.	PAWEL GAJ	Radoslaw Zagozdzon	Employment in Warsaw University in the lab of Krystian Jazdzewski who is now having double affiliation (Warsaw University and Medical University of Warsaw)
14.	MALGORZATA BAJOR	Radoslaw Zagozdzon	Medical University of Warsaw – for additional 24 months
15.	PIOTR STAWINSKI	Radoslaw Zagozdzon	Medical University of Warsaw – permanent position
16.	SLAWOMIR GRUCA	Radoslaw Zagozdzon	Medical University of Warsaw – employed as a volunteer

The reputation that the BASTION conferred to MUW seems to have increased indicated by the fact that researchers from both Poland and abroad are more willing to apply for the positions at the University. This is expected to be further facilitated by national funding institutions such as National Science Centre (https://www.ncn.gov.pl) that encourage international researchers to apply for funds allowing them to the transfer to Polish Universities. One such program, POLONEZ is a funding program addressed to incoming researchers who may apply for 12- or 24-month fellowships in host institutions in Poland.

Despite the success in the employment of scientists via BASTION, the committee was told of the difficulty of keeping trained personnel on board, as stable positions were difficult to come across and recruitment of technicians and students remained problematic.

WP4 (Acquisition of research equipment & Computer Cluster)

This WP has aimed the purchase of a microfluidics station, a protein purification system, a fluorescent microscope and analysis system, a high t-p DNA/RNA sequencer, a laser micro dissection system and an IT infrastructure consisting primarily of servers with large storage capabilities.

All of these aims were completed successfully. The review committee saw all equipment during the first review visitation. Although evidence that these systems were heavily used did not exist, and publications before 2015 hardly include data generated via this equipment, almost all the new grant applications from the group included experiments that would depend on the use of at least one of this equipment. The infrastructure, thus, is clearly able to propel scientific vision and thinking forwards.

How the utility of some equipment like the pipetting station, the DNA isolator and the NGS machine can be maximized needs to be thoroughly thought over, however. One means for their more frequent use could be through national and international collaborative efforts that can be expected to follow this project, or via the shared usage of these by companies that actively collaborate with the university.

The review committee appreciated the new infrastructure and competence of the IT team. However, given the new personnel and infrastructure (and considering that there are about 4 NGS machines in MUW now) the committee suggested that these be used more effectively and possibly as a means of providing bioinformatics services to Europe and beyond. Equipment capabilities of the team could also appear in the projects web page.

Another major issue the committee was told about was the difficulty in obtaining service contracts for the maintenance of the equipment. We were explained that neither the MUW nor E.C. had an instrument by which this type of service could be provided by. Without a repair service contract, it is worrisome to think that this equipment might not be maintained in the foreseeable future.

WP5 (Innovation capacities building)

This WP aimed the recruitment and hiring of innovation manager; the transfer of know-how and networking routes through a series of networking and workshop events, and informing the scientists of the basics of intellectual rights.

We were explained that all deliverables of the WP had been satisfied fully. As explained by the team, 3 reports including the implemented IP protection and management strategy guidelines at the MUW (1), a report on transfer of know-how and networking including Science Business / KUL joint meeting and Pharma Days featuring leading MUW translational projects in oncology (2), and a final report on achieved innovation capacity and IP protection using TTO metrics (3); together with a "guidelines for technology transfer" brochure were prepared.

We were told that the BASTION scientists had made 6 patent applications related to diagnostic tools relevant to oncology.

Major difficulties that were encountered during this WP were explained as follows: 1. The lack of a competent tech transfer officer. 2. Too complicated administrative rules with unnecessary bureaucracy resulting in the frequent loss of the goal or idea that led to the activity in the first place and generating distracting side issues. 3. The tender system which MUW uses delays reagent delivery up to several months.

The review committee recommended the BASTION team at the end of the first visitation to explain to the administrative personnel of MUW in a dedicated meeting how those strategies implemented under BASTION worked and how they could be copied in the University. We also recommended organizing a workshop directed primarily to the MUW personnel, dedicated to the licensing of a patents and methods by which the output of this and similar projects could be sustained.

During the second visitation, we were told that 8 seminars/training sessions aiming raising awareness on IP issues were completed. Moreover, additional science-related on-hands training/exposure related activities for children (<10y) were held. A major meeting (Starup Grind Warsaw) which aimed to inspire, connect and educate entrepreneurs; 2 workshops geared towards basic scientists to help develop their ideas towards a translational research project; a roundtable discussion that included BASTION and KU Leuven scientists where the commercialization of research output were completed successfully.

A web based support group aiming the collaboration of scientists primarily related to tech-transfer issues (ochota-na-transfer) was developed.

Bridging science and business type of activities resulted in 3 projects and 2 grants. Two "pharma day"s one in 2014 and the other in 2015, helped guide research scientists in the direction of translational research and product development strategies. Both meetings included representatives from many leaders of prominent pharmaceutical companies such as Pfizer, GKS, Astra Zeneca and similar.

The committee realizes that all patent applications were made via independent attorneys and not via the TTO of MUW, due to issues of competence, regarding the latter. We

strongly believe that the MUW make competence of its TTO a top priority. We appreciate the educational material produced by the BASTION team that is geared to both scientists as well as the MUW administration in this regard.

WP6 (Project management)

The committee considers the management of the project an overall success. The newly employed scientists are enthusiastic and serious about their work, the utility of the new resources have been carefully planned, international links have been established and/or strengthened and scientific output has increased beyond expectations.

During the second report meeting the review committee was presented with the details of the planned budget and work allocated to individual WPs compared to those that were realized. It was clear to us, based on this presentation, that what had been aimed for had been accomplished to an admirable extent.

The only WP where costs were overestimated was WP7 that included the work of this committee and of that held in February 2016. In this regard, the review committee would like to point out that we think we could be more helpful had we been invited during or the end of the first year of the project (instead we reviewed the project a year later than this date), when we could have helped contribute to some issues that could have been brought up at that time. On the other hand, we realize that the E.C. considers this project to be a success and we also believe it to be so.

Summary and suggestions

The review committee agrees that all WPs and deliverables listed in the original project have been completed as promised and that the BASTION team demonstrated diligence, hard work and an honest outlook throughout the project period. We think that the BASTION group helped establish a network of Polish scientists who now are willing to work in future projects as a team (exemplified with the Twinning grant STREAM, and various other grants to which the team applied jointly); helped better expose the BASTION scientist to the international scientific community which resulted in fruitful collaborations and exchange of know-how; enabled non-scientists as well as scientist in Poland and internationally, to help develop a better sense of various science-related concepts; and lastly helped the MUW to develop a better research infrastructure.

In making our decisions, the review committee used the information presented to us during the review activities, in addition to reports summarizing the number of papers published and the impact factor of journals they were published in, grants applied to and those that were obtained, and employment information among others. We also participated in two of the meetings organized by BASTION and performed a site visitation.

The committee realizes the presence of several activities that clearly indicate the BASTION investment will be sustainable. These include (1) the establishment of new research groups with their own funding, some which include companies as partners, (2) the fact that many researchers were successfully trained during this project either as team members or as participants during various workshops and meetings which also served as a means to initiate long-term collaborations with participating scientists, (3) the sharing of equipment and experience with other local (non-BASTION) scientists, both within and outside Poland, (4) BASTION/MUW as a new name brand with a positive reputation, and (5) the STREAM project which aims the expansion of collaborative work with leading European institutions.

The committee wishes to raise the following points summarized below which, in our opinion, if improved, will significantly contribute to the scientific output of this team and those that collaborate with it.

Although it is very clear that BASTION scientists have published significantly more when compared to MUW scientists, it is also obvious to us that these publications include BASTION scientists more as co-authors than principal authors. We understand that this might be because the team was able to get involved in on-going research within Poland and more importantly at an international scale through initiatives that were part of BASTION, but it is of utmost importance to continue these interactions that will sustain a healthy research activity and collaborations over the long run. The STREAM grant is a very positive development in this line. But we would ideally like to see that the scientist from the BASTION team are successful in attracting other European scientists who are willing to collaborate with them (as opposed to the other way around) which would lead to them publish as the major authors.

We realize that data coming from the new infrastructure including the imaging facility, IT infrastructure, automatic pipetting stations and NGS equipment appears only scarcely among the scientific output of the team. Although disappointing to us, we realize that this might be because many projects that are based on the use of the new equipment have been recently initiated and that output from them might take some time. However, a more important concern we had was the lack of a good plan in the MUW which would allow legitimate company-academic interactions. Many of the instruments obtained through BASTION are suitable for large-scale output rather than basic wet-lab experimentation. As the topic of this project was translational oncology, this is probably expected. During the final meeting that took place on the 22nd of February, 2016, we were presented with strategies by which patented inventions would be carried to the next step which is to develop these through companies working closely with the MUW and therefore the BASTION team. We believe, if companies are allowed to interact with the MUW through clearly defined rules and a visionary approach is taken to foster this, the knowledge and experience which was obtained thus far and which will keep increasing could be put to very good use and this could also become a viable source of income for both the scientists as well as the MUW. The E.C. has made support of SMEs a major
(the rest of the report is continued on the pasted document on the next page)

priority in H2020 and we think the sustainability of the success of the BASTION initiative will also depend on the success of biotech-science collaborations that involve BASTION scientists and their collaborators.

With the new NGS and IT infrastructure in MUW, we strongly recommend that the University consider becoming a hub for the generation of genomic data as well as giving out bioinformatics service. We realize this would require the hiring of additional scientists and personnel. However, in the absence of this, we feel it remains unfair that neither the local team, nor those scientists who possibly could use these services benefit from the full potential of this investment.

We suspect some unresolved administrative issues that stem from the MUW might also be stalling progress: we are told that teaching duties are waived only minimally as the research load of scientist increase through the acquirement of novel grants; hiring technicians and other staff personnel is difficult due to lengthy bureaucracy and the shipment of consumables are delayed due to a tender system which certainly needs to be improved. The team also voiced their concerns about not being able to truly integrate with the facilities and infrastructure of the MUW. All of these are truly issues that ought to be relived as soon as possible. But they show the genuine will of all involved in BASTION to maintain and improve state-of-the-art research activities, and in that sense are highly commendable. We strongly hope that as the research culture establishes itself in Poland, thanks to initiatives like BASTION, and the job definition of not only scientists but many administrative and service positions transform, these issues will ultimately be resolved.

Dated:

22nd of February, 2016

Signed by:

Assoc. Prof. Ali Osmay Gure

Prof. Dr. rer. nat. Christel Herold-Mende

Prof. Bruno Botta

Corresponding budget on realisation of WP7/*

PERSONNEL, TRAVEL AND OTHER MAJOR DIRECT COST ITEMS			
	Item description	**Amount [EUR]**	**Explanations**
Work Package WP7 **Task T7.1 T7.2**	Personnel costs	23,978.11	Fee of the WP7 Leader and Co-Leader (app.5,57 PM)
	Travel	6,974.85	T7.1 - Travel & daily subsistence allowance for three External Experts (3 visits: January'15, December'15 and February'16)
	Remaining direct costs	22,725.00	Fee of the three External Experts/Evaluators
		465.42	Other direct costs (refreshments for coffee breaks and lunches for Steering Committee members 3 meetings)
		1,741.28	Closing BASTION dinner, after roun table meeting; 22.02.2016 (participants of the round table and postdocs)
TOTAL DIRECT COST		**55,884.66**	

/ - exact costs will be presented in the IIIrd Period Report and Form C (April 2016)*

Prof. Slawomir Majewski
WP7 Leader

Prof. Jakub Golab
BASTION Project Coordinator – WP7 Co-leader

Warsaw, February 2016