BEBUC press release of October 24, 2017

PhD Graduation of the First BEBUC Scholar

The Congolese pharmacist Dieudonné Tshitenge Tshitenge was one of the first young scientists who were supported by the BEBUC Excellence Scholarship Program from April 2008. He is now the first who has completed his doctoral studies in Würzburg.

University studies and career of Tshitenge

Born in Kananga, in the heart of the Democratic Republic of the Congo, Dieudonné Tshitenge Tshitenge got several awards at an early stage already like, for example, a prize for the best high-school graduates of the country. From 2006 on he studied pharmacy at the University of Kinshasa, in the capital of the Congo.

In March 2008, he then was one of the candidates during the very first BEBUC evaluation, which was organized in a still somewhat improvised manner, between boxes and lab equipment in a store room. The newly established BEBUC Committee under the guidance of Professor Gerhard Bringmann (Chair of Organic Chemistry I of the University of Würzburg) consisted, at that time, of the Congolese professors Virima Mudogo (deputy chair), Dibungi Kalenda, Josaphat Ndelo-di-Phanzu, José Lami, and Matthieu Bokolo. Tshitenge presented himself to the Committee with a ten-minute scientific talk in French – followed by an interview about that topic and about his future plans.

This direct, personal procedure has, since then, been constantly further optimized, based on the same principle, which was maintained. At that time, during "BEBUC Pilot Phase I", two students from chemistry were selected and two from pharmacy, among them Tshitenge. He is, thus, the very first one who has been supported from the beginning and has now successfully completed his entire studies. Two further scholars from 2008 are PhD students in Würzburg, too, they work in the field of natural products chemistry, in G. Bringmann’s research group.

Since his admission to BEBUC, Tshitenge has been examined again every year, then always in English. BEBUC places great value on internationality and good language skills. "Tshitenge has always convinced the Committee by his outstanding study records", says Bringmann, who has chaired each of these evaluations.

In December 2011, Tshitenge graduated from his bachelor studies at the University of Kinshasa, attaining the best result in his faculty. He then pursued his master studies within the framework of an EU-funded Congolese-Belgian curriculum. The experimental part of his master thesis was performed at the University of Würzburg, which has been linked to the University of Kinshasa by a partnership agree-
ment since 2003. In Würzburg, Tshitenge worked in the lab of G. Bringmann, in collaboration with Professor Josaphat Ndolo-di-Phanzu, who, as the Rector of the University of Kinshasa, had signed the first cooperation agreement.

Tshitenge's master thesis dealt with the quality control of Congolese malaria drugs and the isolation of bioactive compounds from Congolese medicinal plants. He graduated from his master studies again achieving the best results of the entire faculty.

He continued his research in his PhD work, during which, following a strict selection process, he was supported by the Graduate School of Life Sciences of the University of Würzburg, which is financed by the Excellence Initiative of the German Government. At the same time, BEBUC further mentored him – scientifically and organizationally.

During his PhD work in G. Bringmann's lab, Tshitenge analyzed phytomedicines for the treatment of malaria that are authorized in the Congo – an important task since many of them had never been investigated for their efficacy and for their chemical components.

Moreover, Tshitenge isolated numerous new alkaloids from a Congolese liana and elucidated their unique structures. These natural products, among them the ealapasamines, which he discovered, show promising activities against the pathogens of tropical infectious diseases and against cancer cells. His outstanding results are documented in several publications and were honored with various awards (i.a. for good posters and oral presentations) and by travel grants for the attendance of international conferences.

The final public defense of Tshitenge's doctoral thesis took place on October 23, 2017. Members of the PhD Committee were G. Bringmann and other scientists from the University of Würzburg, and Professor Karine Ndjoko from Lausanne, who is also a member of the BEBUC Evaluation Committee.

The Scholarship Program BEBUC

The scholarship program BEBUC has set itself the goal of providing the Congo with a new generation of excellent new professors. In view of the extremely difficult situation in the country, this is absolutely required. The academic staff there is largely overaged and, in many cases, not sufficiently qualified. BEBUC presently supports 187 outstanding young Congolese from virtually all study fields of the entire Congo.

The program is supported in particular by the German foundation *Else-Kröner-Fresenius-Stiftung* (Bad Homburg) and, in special cases, also by the foundation *Holger-Pöhlmann-Stiftung* (Margetshöchheim) and by the *Bayer Foundations*.

Responsibility in BEBUC

The program does not only place great value on excellent study records but, in particular, also on social, linguistic, organizational, and ethical competences. The scholars organize themselves by electing at each institution a Speaker (and, in some cases, one or more Vice Speakers). These Speakers, in turn, form a Congo-wide Speakers’ Council, which elects from among them a ‘Prime Speaker’ – BEBUC has an intrinsically democratic structure.

To take responsibility and to be pro-active – these are central values in BEBUC. Thus, Tshitenge acted as the speaker of the scholars of the capital Kinshasa for several years, until he was the first to take the central task of the Prime Speaker. Moreover, he acted as a member of the Managing Board of the NGO *Förderverein Uni Kinshasa e.V.*, which organizes the scholarship program.

Future Plans

The PhD graduation is of course only a milestone in Tshitenge’s career: Since September 2017, the 30-year old scientist has been working at the German company Bayer AG in order to acquire specific pharmaceutical know-how for his further career – and from now on as a postdoctoral fellow.

For the near future, BEBUC expects several further graduates, among them those who, like Tshitenge, have been supported from the beginning, but also ‘cross-entry’ fellows who have only been supported since their master or PhD studies.

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