

**EXPERT REPORT** 

Certification
of the Advanced Training Programme
"International Specialist in Implant Dentistry"
at the University Medical Center,
Albert-Ludwigs-University Freiburg
in Cooperation with the
West China Medical University

**Certification of the Advanced Training Programme** "International Specialist in Implant Dentistry"

**Expert Report** 

# **Impressum**

evalag (Evaluationsagentur Baden-Württemberg) Stiftung des öffentlichen Rechts M 7, 9a-10, 68161 Mannheim www.evalag.de

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# 1. The Advanced Training Programme "International Specialist in Implant Dentistry"

The advanced training programme offers the further education of general dentists in the field of implantology. It is designed as an extra-occupational programme that qualifies dentists to perform implant dentistry in their own practice. The international programme is conducted as a cooperation between the Department of Oral and Maxillofacial Surgery at the University Medical Center, Albert-Ludwigs-University Freiburg in Germany, the West China School of Stomatology, West China Medical University, Chengdu in China and the Beijing Chengxinzan Medical Technology Co., LTD, Beijing in China. The programme is part of the Freiburg Academy of Continuing Education (FRAUW).

The University Medical Center Freiburg (Universitätsklinikum Freiburg) is the teaching hospital and part of the medical research unit of the University of Freiburg, and home to its Faculty of Medicine. The medical center is one of the largest and most reputable in Europe, due to its extensive clinical capabilities and advances in research.

The Department of Oral and Maxillofacial Surgery, directed by Prof. Dr. Dr. Rainer Schmelzeisen, is part of the University Medical Center Freiburg. The Department provides modern treatment concepts as well as undergraduate and postgraduate student education.

The West China School of Stomatology, Chengdu in China is part of the West China Medical University and rated as the best of three implant departments nationwide. It is an institution for doctoral, master, and postdoctoral research.

The Beijing Chengxinzan Medical Technology Co., LTD, Beijing in China is a science and technology oriented company focusing on dental technology support and transfer, medical equipment sales, dental clinic service and dental training. The company has specialized in dental postgraduate training and brings together Chinese faculties from different universities. In 2013 ten series of dental implant courses were held, attended by 1.300 dentists. The company employs six administrative staff to organize the courses, three dentists offering students' counselling and one interpreter for English speakers.

The advanced training programme is part of the Freiburg Academy of Continuing Education (FRAUW) which coordinates continuing education programmes at the Albert-Ludwigs-University Freiburg designed for students working a full-time job. FRAUW assesses certain criteria an advanced training programme must fulfil in order to be entitled to issue the planned certificate.

# 2. The Certification Procedure

The objective of a certification of an (advanced) training programme is to verify the congruence between the qualification goals and the conception as well as the effectiveness of its implementation.

The assessment procedure was carried out with an informed peer review on the basis of a self-assessment report of the programme provided by the University Medical Center Freiburg, a site visit of an expert team, an assessment report by the expert team and the certification decision by **evalag**'s Accreditation Commission.

The procedure applies the fitness for purpose approach which assesses to what extent a programme complies with the criteria for the certification of an (advanced) training programme. These are formulated in coherence with the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The assessment is based on the following ten criteria:1

- 1. Qualification Goals
- 2. Level of the Advanced Training Program
- 3. Concept of the Advanced Training Program
- 4. Studyability
- 5. Scheme of Examination
- 6. Cooperation in the Field of Advanced Training
- 7. Staff and Resources
- 8. Transparency and Documentation
- 9. Quality Assurance and Development
- 10. Equal Opportunities

evalag appointed an expert team consisting of two experts:

- PD Dr. med. Dr. med. dent. Christiane Gleissner, University Medical Center of the Johannes Gutenberg-University Mainz, Department of Operative Dentistry
- PD Dr. Frank Peter Strietzel, Senior Lecturer of the area Oral Medicine, Dental Radiology and Surgery at the CharitéCentre 3 for Dental, Oral and Maxillary Medicine of the Charité Medical University, Berlin

The two experts declared to be free of any conflict of interest. From **evalag**'s side, Tina Koch coordinated the certification.

As a first step of the procedure and as a preparation for the site visit, the University Medical Center Freiburg produced a self-assessment report based on guidelines provided by **evalag.** 

In a second step, the site visit (Annex 2) took place on April, 29<sup>th</sup> and 30<sup>th</sup> 2015 at the University Medical Center Freiburg. During the site visit the expert team met with the representatives of the University of Freiburg, the programme representatives (in Freiburg and in China via skype), the academic staff (in Freiburg and in China via skype) and visited the premises. On the site visit the expert team received a revised and more detailed copy of the manual for the advanced training programme.

Finally, the expert team produced an assessment report of the programme with a certification recommendation which was submitted to **evalag**'s Accreditation Commission. The commission took the final certification decision on July, 13<sup>th</sup> 2015.

<sup>&</sup>lt;sup>1</sup> The detailed description of the assessment criteria can be found in Annex 1.

The certificate is valid for a period of five years, in case of a renewal, the validity period is seven years.

The following assessment report is structured according to the ten assessment criteria, which are the basis for the decision about the certification. Each chapter starts with a presentation of the current status regarding the criterion which is based on the information in the self-assessment report and the information gathered during the site visit. On this basis, the expert team assesses the compliance with the criterion and makes recommendations for further improvement.

# 3. Programme Assessment

#### 3.1 Qualification Goals

#### **Current Situation**

The advanced training programme "International Specialist in Implant Dentistry" is an extra-occupational programme designed for dental practitioners who aim at specializing in implant dentistry. It is tailored to the interests of Chinese dentists who face a growing dental implant market while dental implant therapy is not sufficiently taught in the basic dental training. For the admission to the advanced training programme applicants must hold at least a Bachelor's degree in dentistry, in addition at least one year of practical experience and a passed admission examination is required. Furthermore, participants must be able to speak, read and understand the English language.

The successful participation in the advanced training programme leads to a Certificate of Advanced Studies (CAS) and is issued by the University of Freiburg. This certificate qualifies general dentists to practice implant dentistry in their doctor's office.

The advanced training programme provides the participants with theoretical and practical background on human anatomy and structural biology; oral surgery and implant surgery. The students are trained in implant mechanics, diagnostic and pre-treatment planning and decision making, and concepts for surgical and prosthetic implant treatment as well as in anatomy, periimplantitis and periimplant treatment. The programme provides training on hygiene measures and economics with regard to their introduction into the daily practice of the students. The qualification goals of this training programme build up on the professional expertise of the participants, as all of them have already completed their fundamental medical and dental education and are working as dentists. The aim of the training programme is to convey further knowledge on implant dentistry and to enhance the practical skills of the students in order to enable them to provide dental implant treatment in their own clinical practice.

In the manual the learning outcomes are defined for each class. The objectives of the training programme are the following:

The students should develop key skills to perform implant dentistry. The students should attain fundamental knowledge in anatomy of the head and neck region relevant for implantology and transfer anatomical knowledge to the surgical field. The students should perform diagnostics in implant dentistry and identify individual patient needs for implant-based rehabilitation. The students should be able to independently plan and perform implant surgery and/or prosthetic restoration of simple and complex patient cases. The students should be able to perform implant-prosthetic treatment with a comprehensive treatment plan according to the individual needs of each patient. The students should be able to diagnose periodontal and periimplant diseases and gain basic knowledge of their treatment. The students should know hygiene concepts for the dental practice. The students should have fundamental administrative skills to lead a dental practice performing implant dentistry.

The qualification goals are communicated on the online platform (http://www.bjcxzkq.com/) which is provided by the Beijing Chengxinzan Medical Technology Co., LTD.

#### **Assessment**

The expert team assesses the admission conditions as adequate as the Chinese Bachelor in Dentistry requires at least seven years of studying (four to five years for the Bachelor's degree and in addition three years of practical training in order to attain the dental license). It is of great importance that the participants are required to have at least one

year of practical experience. The entrance exam is equally important to ensure that the participants fulfil certain requirements, obtain a certain knowledge and hence, can be taught on a certain level.

The programme objectives are clearly defined and the intended qualification goals and learning outcomes do reflect the necessary competences in the field of implant dentistry. The expert team appreciates the wide range of the training programme including hygiene, economics, anatomy and periodontology. The learning outcomes describe the competences a dentist needs in order to be able to perform implant dentistry in his/her doctor's office.

#### Recommendations

The expert group recommends to spell out explicitly that one requirement for admission is the Chinese Bachelor's degree or an equivalent. That way applicants from foreign countries can be equally considered. The equality of the degree would have to be determined from case to case – ideally by a panel also responsible for the examinations (cf. below, p. 14).

The expert group recommends to emphasize that all admission examinations, lections, practical courses, written and oral tests, final examinations, any communication between lecturers, supervisors and course participants must be done in English.

# 3.2 Level of the Advanced Training Programme Current Situation

The advanced training programme addresses dentists with a Bachelor's degree. The level of the classes taught in this training programme corresponds to level 6 of the German Qualifications Framework (DQR). The programme is awarded with 11 ECTS credit points and qualifies for a Certificate of Advanced Studies (CAS).

Level 6 defines advanced knowledge of a field of work or study, involving a critical understanding of theories and principles; furthermore it comprises advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study; and last but not least it requires the competence to manage complex technical or professional activities or projects in connection with taking responsibility for decision-making in unpredictable work or study contexts as well as taking responsibility for managing professional development of individuals and groups.

For admission and conduction of the training programme credits from other universities are not accredited. Up to now there exists no specialized and accredited international training programme focusing on implant dentistry that may be accredited for the advanced training programme "International Specialist in Implant Dentistry". With the further development of internationally accredited training programs in dentistry and implantology in the future, the accreditation of credits from other universities will be reviewed.

In the future the integration of the Certificate of Advanced Studies (CAS) in an International Master's programme is planned.

#### **Assessment**

The expert team evaluates the level of the training programme as adequate according to the German Qualifications Framework (DQR). The level of the classes is slightly higher than level 6 but not high enough to qualify for level 7.

The fact that credits from other universities are not accredited for the admission and conduction of the advanced training programme ensures a high standard of education for the participant throughout the course.

#### Recommendations

It should be stated more explicitly that the goal of the advanced training programme is the Certificate of Advanced Studies (CAS). This should also be communicated clearly in the marketing of the programme.

As the training programme is evaluated slightly higher than level 6, the expert team recommends to consider an upgrading to level 7, if in the future the training programme might be included in an International Master's programme.

# 3.3 Concept of the Advanced Training Programme Current Situation

The advanced training programme was designed at the University Medical Center, Albert-Ludwigs-University Freiburg; the international programme is organized in Freiburg and in China; classes are held at the Medical Center of Freiburg, at the West China School of Stomatology in Chengdu, China, and at the Dental Clinic of the Beijing Chengxinzan Medical Technology Co., LTD in Beijing, China.

The target group of the advanced training programme are dentists that are licensed to practice general dentistry. In the past, implant dentistry was mainly practiced in the university dental clinics in China; currently there is a shift to an increased use of implants in private practices. As dental education in universities does not include implant dentistry, the training programme fills this gap and provides general dentists with theoretical and practical knowledge to practice implant dentistry.

The advanced training programme was planned on the basis of a long-lasting partnership between Chinese higher education institutions and German faculty members of the University of Freiburg. Specialists from different disciplines in medicine and in dentistry have been gathered to provide a training programme that ensures qualified teaching of each subject. Each part of the curriculum was composed by the lecturer specialized in the respective field together with the scientific director of the training programme.

The admission to the advanced training programme requires a Bachelor's degree, at least one year of practical experience, and a passed admission examination. Admission examinations are held at the Beijing Chengxinzan Medical Technology Co., LTD, in Beijing and in a classroom at the West China School of Stomatology in Chengdu, Sichuan. The two locations are provided to ensure that interested students throughout the country may apply and attend the admission examinations. There are two fixed dates for the admission examinations: in March for the admission in September and in September for the admission in March.

The applicants must sent in a provided application form together with the certificate of the Bachelor's exams in dentistry until February 15<sup>th</sup> (admission examination in March) and until August 15<sup>th</sup> (admission examination in September). In case of a higher number

of applications, the date of application will be considered at a first come, first served basis (early applications are preferred). The application form is provided and collected by the Beijing Chengxinzan Medical Technology Co., LTD. The application form is published on the communication platform provided by the company (http://www.bjcxzkq.com/).

Students admitted to the training programme sign a contract with the Beijing Chengxinzan Medical Technology Co., LTD, and are charged with a tuition fee of 13.000€. The rules for the payment of tuition fees are stated in the studies and examination regulations and in the fee schedule.

The extra-occupational training programme is organized as a part-time course for dentists combining obligatory attendance courses with self-study time. The duration of the training programme is one year including the final examinations. If a student is not able to complete two semesters consecutively, the next possibility for continuation is provided in the following period of the training programme. Classes are not to exceed the number of 25 students. Therefore – considering students repeating classes and delaying their participation respectively – each course starts with a maximum of 20 participants. The initial enrolment is conducted twice a year in March and in September.

The advanced training programme consists of two modules with five classes: module 1: Surgical and Prosthetic Implant Dentistry (6 ECTS) with three classes and module 2: Implant Practice Management and Periimplantology (5 ECTS) with two classes. Accordingly, the programme adds up to eleven credit points (ECTS). One credit point corresponds to 25 working hours and includes class hours as well as self-study time. Hence, the programme comprises 275 hours of workload. In detail, the workload is distributed as follows: module 1, classes one to three with a workload of 40 hours each; module 2, class 4 with a workload of 80 hours and class 5 with 25 hours. Additional 25 hours per semesters are reserved for self-study time.

Classes 1 to 3 and 5 are taught at the West China School of Stomatology, Chengdu, and at the Dental Clinic of the Beijing Chengxinzan Medical Technology Co., LTD, Beijing. Class 4 is held at the Department of Oral and Maxillofacial Surgery at the University Medical Center Freiburg.

The classes address the following topics: fundamentals in oral surgery, implant surgery, implant prosthetics, anatomy, hygiene, business and economics, basics of periodontology and periimplantitis therapy.

The scientific director of the programme designed the curriculum in cooperation with the teaching staff. The teaching staff developed the teaching contents and the qualifications goals set for each class. The teaching material for each class was and will continuously be reviewed by the scientific director.

The scientific director provides educational objectives that are respected by the teaching staff. The content of lectures follow the curriculum scheduled for each class. For each class, one head lecturer from the German faculty is appointed. The head lecturer designs course work according to the study objectives and is present throughout the whole class. Each class is supported by a Chinese lecturer specialized in the respective field. Reachability is granted through the online communication platform supported by the Beijing Chengxinzan Medical Technology Co., LTD. On this platform teaching material is uploaded and students may forward questions to the lecturers openly or confidentially.

The training programme includes lectures, seminars and hands-on exercises. During lectures and seminars the lecturers communicate basic knowledge and demonstrate it by presenting and discussing clinical cases. An open discussion during seminars is encouraged. Students are asked to work on tasks in small groups and present their results orally to the class. That way an independent utilization of the learnt knowledge is asked for.

The transfer of knowledge between the training programme and professional practice is implemented in hands-on workshops, live treatment and supervision. The supervision of students is organized in groups of five students for each supervisor. Students have to prepare cases in their clinical practice and present them to the class. The preparation takes place between the classes and the cases are to be presented in the consecutive class. Each student is asked to present at least one patient case. The treatment can either be a prosthetic or a surgical implant treatment or a combination of surgery and prosthetics. The employment of presentation instruments and the structured oral presentation is emphasized. Moreover, students must perform a treatment (either surgical and/or prosthetic) under supervision. The supervisors are members of the Chinese Faculty who teach undergraduate and postgraduate courses at their university. The supervised treatment can be conducted in the students' clinical environment or at the host institution.

Student counseling is provided by an employee of the Beijing Chengxinzan Medical Technology Co., LTD, who is a dentist and is experienced in clinical practice. During the classes held in Beijing a student counselor is permanently present. In between the classes and during classes held at other locations (West China School of Stomatology, University of Freiburg) the student counselor may be reached via the online communication platform (http://www.bjcxzkq.com/).

The online platform provides for the communication between counseling staff and students and teaching staff respectively. Equally, notifications concerning organizational topics are announced on the platform. The students may address questions to the teaching staff and can receive teaching material on this platform.

#### **Assessment**

The overall concept fits the qualification goals of the advanced training programme. The programme is tailored to the needs of a Chinese general dentist who wants to specialize in implant dentistry.

The expert team is impressed by the commitment of the scientific director, the programme coordinators and the teaching staff. Their effort, their willingness to travel to China regularly and the long lasting cooperation between the Chinese institutions and the University Medical Center Freiburg are the prerequisites for this ambitious project. Excellent qualified staff was brought together to develop the concept and the curriculum of this advanced training programme.

The entry requirements and admission conditions of the programme are defined, comprehensible and set forth transparently, and there is a legal relationship between the students and the Beijing Chengxinzan Medical Technology Co., Ltd.

The curriculum is well composed and fits the qualification goals and corresponds with the learning outcomes. The curriculum covers a wide range of topics related to the daily practice of an implant dentist. The expert group is concerned though, whether the time frame is sufficient to cover the multiplicity of topics.

#### Recommendations

The experts suggest to consider the adjustment of the time frame set out for the curriculum. Especially, if translation into Mandarin language might be necessary in the classes additionally, 80 to 100 % more time is needed or some contents have to be abandoned. In order to keep the needed translation during classes to a minimum, a certain level of English language skills should explicitly be stated as one admission condition.

The expert group recommends to emphasize that all admission examinations, lections, practical courses, written and oral tests, final examinations as well as any communication between lecturers, supervisors and course participants must be done in English.

In class 5 the repetition of modules 1 and 2 is scheduled. But as class 4 is very comprehensive, a recommendation of the expert group is to include time for repetition in class 4 already. Moreover, if the repetition is scheduled for class 5 only, the German teaching staff must be contacted via skype, as class 5 takes place in China, whereas class 4 is taught in Germany.

To enhance the curriculum the expert team recommends to explicitly include in class 1 radiographic examination techniques. In class 2 certain properties of different implant systems according to indication rules should be considered. Moreover, the SAC (simple – advanced – complex) classification of different clinical situations should be considered throughout all classes.

Responsibilities and processes concerning concept and contents are closely linked to the person in charge momentarily and hence, very much dependent on the person's commitment. In order to guarantee the sustainability of the programme the expert group strongly recommends to institutionalize responsibilities and processes independently of the actual person involved (see further recommendations related to this topic below in the chapter on "Staff and Resources", p. 15ff.).

# 3.4 Studyability

#### **Current Situation**

An employee of the Beijing Chengxinzan Medical Technology Co., LTD, is continuously present in classes 1-3 and 5 and provides student counseling and student services. The student office, located at the Beijing Chengxinzan Medical Technology Co., LTD, can during classes be reached daily between 9 am and noon. In between the classes and during class 4 the students may contact the counselor and the teaching staff through the Beijing Chengxinzan Medical Technology Co., LTD, or via the online platform.

The workload of the training programme accounts for the personal circumstances of the students. Students can continue their professional practice during the duration of the extra-occupational programme. All five classes have obligatory times of presence from three to ten full days each. Daily practice is adjourned but can be taken up between the classes. Beyond these times of presence 25 hours of self-study time per semester are required.

Lecturers accompany classroom teaching with presentations prepared on the basis of the curriculum and educational objectives. The lectures use clinical patient cases for the demonstration of educational objectives and are encouraged to enforce the used techniques with scientific finding. For demonstration of surgical techniques in implant dentistry live treatments of patients are organized in class 2 and 4. The surgeries are recorded and transferred to the classroom simultaneously enabling students to address questions on the operation techniques directly to the surgeon. The facilities for live operations are located in the West China School of Stomatology and in the Department of Oral and Maxillofacial Surgery in Freiburg. For hands-on seminars the organization provides instruments and teaching material. A summary of the written teaching material is provided within a textbook (hardcopy).

#### **Assessment**

According to the expert group appropriate measures are taken to ensure the studyability of the advanced training programme.

The workload during the classes as well as the self-study-time is ambitious but, due to the experts, feasible. However, the time frame scheduled for the classes and for the examinations seems to be too narrow: Due to needs of interpreting the classes as well as the examinations might take longer than scheduled.

The preconditions concerning staff – the qualification of the staff, the teaching methods as well as the teacher-student ratio – and facilities are excellent and will contribute considerably to the studyability of the programme. The supervision of the treatment case is well organized and will support the students adequately.

Sufficient general and specific support as well as counselling will be provided by the Beijing Chengxinzan Medical Technology Co., LTD. The teaching staff will be reachable via the online platform. This service is of high importance considering that students may work and live in different parts of the country. As the programme has not started yet, the functioning and reliability of the communication between students and teaching staff cannot be evaluated at the moment.

#### Recommendations

In general, the experts judge the studyability of the advanced training programme as given except for the time frame of the classes and of the examinations. Therefore, the expert group advises to reconsider the time scheduled for the classes and for the examinations in the light of possibly needed translation (cf. below the recommendations concerning the scheme of examination, p. 15f.).

In order to evaluate the functioning and reliability of the communication between students and teaching staff via the online platform, the experts' advice is to include relevant questions in the students' evaluation and closely monitor the development.

#### 3.5 Scheme of Examination

#### **Current Situation**

The admission examinations are designed by the German Faculty according to the requirements for participation in the training programme. The conduction of the admission examinations is organized and supervised by the Chinese Faculty. The written admission examination inspects whether the basic knowledge in general dentistry, which a Chinese Bachelor's degree qualifies for, exists. The written admission examination comprises the following topics: The students should be able to diagnose and name common oral diseases regarding oral biology and internal medicine. The students should have fundamental knowledge of the pharmacology of local anesthesia, antibiotics and commonly used anti-inflammatory drugs in dentistry. The students should be able to provide first aid in case of emergency. Furthermore, skills to communicate in English language will be assessed.

The final oral examinations are held by members of the German Faculty in China. An interpreter provides interpretation during all examinations. The studies and examination regulations and the admission regulations specify the conduction of admission and final examinations.

In each class related examinations including oral, written or practical tests may be conducted. The class instructor announces the scope of course-related examinations at the beginning of the class. The class examinations are not graded.

Granting of the Certificate of Advanced Studies "International Specialist in Implant Dentistry" is based on passing the final examination. In the last class (5) a repetition of classes 1 to 4 is conducted, and at the end of class 5 the final oral and written examinations are held. The students are notified of their examination date during class 4 and the scope and method of examination is explained to them.

The final examination is divided into an oral part (20 minutes), a written examination (multiple choice, 45 minutes), and a case presentation which is conducted in class 2. All parts are graded separately (oral part 40 %, written part 40 %, case presentation 20 %). If one part is failed, it has to be retaken. Resit examinations are held during class 1 and class 2 of the following semester. Each student may perform two re-examinations to pass the advanced training programme.

The oral examination is conducted by a university professor or associate professor and accompanied by a qualified observer (Master's degree in dentistry or equivalent) and a translator (Master's degree in dentistry or equivalent). Scientific staff and lecturers may, as an exception, perform examinations in place of professors if professors/associate professors are not available. Each student is examined separately in a session of about 20 minutes. The examiner and the observer write minutes of the examination and confer with each other about the grading. To standardize the assessment, a list of requirements for each grade is issued prior to the oral examinations and handed to each examiner. Grading is performed along with the standards of the ECTS grading system.

For the final written examinations the curriculum of each class is considered. Each class instructor hands a list of questions to the examiners. The examiners may choose questions on the basis of the educational objectives reflected in the curriculum. The scientific director reviews the questions for the written examinations. The examination is held at the end of class 5. All students take the final written examination in one room and are handed the examination at the same time. Grading is performed along with the standards of the ECTS grading system.

In case of temporary or chronic mitigating circumstances that are not related to the examination, compensatory measures are taken. The certification of study-related skills and knowledge however has to be conducted. The student with mitigating circumstances may be granted more time and utilities to complete the examination. If temporary mitigating circumstances do not allow taking the examination, a medical certificate has to be sent in for the change of date of the examination.

The studies and examination regulations are to be reviewed and passed by the University Council and the Managing Board of the Albert-Ludwig-University Freiburg; they comply with the legal standards for the higher education area.

#### **Assessment**

In general, the scheme of examination is appropriate concerning the concept of the advanced training programme. It fits the qualifications goals and the teaching methods of the programme. Defined grading criteria exist and are transparently documented. The expert team acknowledges the technical design and organization of the examinations. With regard to the content of the examinations though, the experts would appreciate further clarification and documentation. Moreover, the expert group misses an examination board.

As the studies and examination regulations are not yet finalized, the experts could only assess the draft which needs further explication and clarification.

#### Recommendations

The expert group recommends to specify in detail the framework and content of the examinations (admissions and final examinations) in the studies and examination regulations. A detailed description of the framework and contents of the examinations is indispensable in order to ensure fair assessment and to prevent appeals.

The experts believe that it would be very sensible to include in the admissions examinations a part in which the English language skills of the participants are checked. That way a certain level of English language skills would be ensured and thereby, it could be prevented that the translation in class might take up too much of the study time.

The English language should be used exclusively in all examinations, and this should be documented clearly in the studies and examination regulations. Otherwise, it is difficult to apply the grading system in a transparent and fair way.

In the studies and examination regulations it is stated that "In each class related examinations including oral, written or practical tests may be conducted". The experts strongly recommend to tighten the requirements: Each class must be accomplished by a written evaluation of the learning progress in combination with an evaluation of practical skills where applicable in order to evaluate the learning process not only at the end of the programme but continuously. Nonetheless, the examinations at the end of each class need not to be graded.

As needs of interpreting are to be expected in the examinations, the expert group suggests to raise the time for the final oral examination from 20 to 45 minutes.

The expert group strongly recommends to install an examination board in order to guarantee the proper conduct of the examination procedures and to be prepared for appeals.

# 3.6 Cooperation in the Field of Advanced Training Current Situation

The training programme is organized in cooperation between the University of Freiburg and the West China School of Stomatology (West China University). Furthermore, the cooperation is to be settled in a contract between the Department of Oral and Maxillofacial Surgery, University Medical Center Freiburg and the West China University.

The Beijing Chengxinzan Medical Technology Co., LTD, will be contracted for counseling services and for the administration of the training programme in China. The contract between the University of Freiburg and the Beijing Chengxinzan Medical Technology Co., LTD, specifies the payment of tuition fees. The Beijing Chengxinzan Medical Technology Co., LTD, will administer the fees in accordance with a budgetplan to the different institutions involved in the training programme. The budgetplan was calculated by the Department of Oral and Maxillofacial Surgery, University Medical Center Freiburg and is to be passed by the University Council Freiburg.

For a detailed description of the cooperation with regard to its organization and the division of responsibilities see above the section dealing with the concept of the advanced training programme (3.3, p. 8ff.).

#### **Assessment**

The cooperation between the University of Freiburg and the West China University is an essential feature of the training programme. It is most important that the cooperation is anchored in proper contracts with all institutions involved.

The commitment of all persons involved makes this cooperation and hence, this programme possible. At the same time the experts detect a problem in the fact that processes and responsibilities are very much linked to individual persons.

#### Recommendations

The expert team stresses that proper contracts are to be concluded with all institutions involved. The cooperation should not only be contractually agreed on, but also communicated in a transparent way. An important aspect of the contracts is, due to the expert group, that they should prevent the copying of the concept of the programme without full agreement of all involved parties.

To ensure the sustainability of the programme independently of the persons involved, the structure, processes and responsibilities in this cooperation should preferably be defined more independently of the individual persons involved. Processes and responsibilities must be institutionalized in order to account for sustainability.

#### 3.7 Staff and Resources

#### **Current Situation**

The University of Freiburg provides teaching staff for all classes held in China and in Germany. Employment contracts will be concluded between the University of Freiburg and the teaching staff external to the University.

A specialist member of the German faculty teaches each class in cooperation with a member of the Chinese faculty. In addition, visiting lecturers from Beijing University and from the CharitéCentrum, Berlin, with proof of their qualification in the respective field have been appointed for the course. An interpreter provided by the Beijing Chengxinzan Medical Technology Co., LTD, is available for the translation of English to Chinese throughout the whole programme.

The teaching staff is selected by the scientific director of the programme together with the coordinators. The criteria for the selection of the teaching staff are extensive clinical and research knowledge and experience as well as specialization in the field of teaching. For clinically related topics, such as hygiene and practice management, teachers with proven knowledge and experience in the respective topics are chosen.

Teaching posts available in the advanced training programme are: scientific director, senior lecturers, lecturers, assistant lecturers and course instructors. Senior lecturers and lecturers have a Master's degree or PhD in dentistry or equivalent. Each senior lecturer is in charge of one class. Senior lecturers and lecturers conduct lectures and seminars and are supported by assistant lecturers. Course instructors teach hygiene and business/economics. As the total teaching staff amounts to 11 people, with full enrolment of the study course a teacher-student ratio of 1:10 is attained. New members of the German and of the Chinese faculty will be introduced to the training programme as

assistant lecturers, have to attend the class that they will be teaching at least once, and have to take part in staff meetings.

The teaching staff is payed by the tuition fees. The fees and salaries are disclosed in a budgetplan that is to be passed by the University Council Freiburg.

Post	Denomina- tion	Job Holder	Institution	Subject	Teaching Load / Semester
DMD, Dr.	Oral Surgeon	Tabea Flügge	University Medical Cen- ter Freiburg	Implant Sur- gery	30 h
DMD, MBA, MSc	Dentist and Master of Business Ad- ministration	Michael Hohl	Private Practice	Business and Economics	16 h
DDS, Prof. Dr.	Oral Surgeon	Xiulian Hu	Beijing Uni- versity	Implant Sur- gery	30 h
DMD, Prof. Dr.	Prosthodon- tist	Ralf Ko- hal	University Medical Cen- ter Freiburg	Implant-sup- ported pros- thetics	20 h
DDS, PD Dr.	Oral Surgeon	Su- sanne Nahles	Charité Universitätsmedizin Berlin	Implant surgery	15 h
DDS, Prof. Dr.	Oral Surgeon	Katja Nelson	University Medical Cen- ter Freiburg	Implant surgery	35 h
MD, Prof. Dr.	Periodontolo- gist	Petra Ratka- Krüger	University Medical Cen- ter Freiburg	Periodontolgy	8 h
DMD, Prof. Dr.	Medical doc- tor	Eleni Roussa	University Medical Cen- ter Freiburg	Anatomy	16 h
	Surgical assistant, Auditor	Willi Sei- den- berger	University Medical Cen- ter Freiburg	Hygiene	16 h
DMD; Dr.	Periodontolo- gist	Johan Wölber	University Medical Cen- ter Freiburg	Periodontology	8 h
DMD, PhD	Oral Surgeon, Prosthodontist	Man Yi	West China School of Sto- matology	Implant-sup- ported prostho- dontics	20 h

Table 1: Lecturing staff in the advanced training programme "International Specialist in Implant Dentistry" (Self-assessment Report, p. 11)

At the University of Freiburg one lecture hall and one seminar room are available for teaching. The seminar room sits up to 35 people. The lecture hall and the seminar room are equipped with a desktop computer or laptop respectively and a data projector for demonstration of presentations. Furthermore, a lab room for hands-on training courses is available. For hands-on courses a camera projecting the lecturers' demonstration to a screen and several monitors will be provided. For the demonstration of surgeries a camera system with live broadcasting to the seminar room is available. The hospitals operation theater and sterilization unit are used for hygiene classes and for hands-on training in packaging and management of sterilized instruments.

The library at the dental clinic of the University Medical Center Freiburg is accessible for students. Computer workstations with access to scientific literature and a portfolio are available. The open hours are between 9 am and 6 pm on weekdays.

The West China School of Stomatology offers teaching resources including 24 dental treatment rooms and 5 operation rooms. One operation room is equipped with a live recording system and real-time transfer to the classroom. Classrooms for seminars and hands-on training holding 25 students are available. A congress hall holding 200 people is also available for teaching. The library may be accessed by students of the advanced training programme and is equipped with medical literature and access to online resources (Medline, PubMed, ScienceDirect, EBSCO, Blackwell).

At the Beijing Chengxinzan Medical Technology Co., LTD, there are dental treatment units, a classroom for seminars and a congress hall available.

The advanced training programme is to be conducted without commercial funding. The tuition fee of 13.000€ to be payed by each participant was calculated to cover all expenses of the programme. The Beijing Chengxinzan Medical Technology Co., LTD, collects the fees and distributes them to the institutions involved according to the budget-plan.

#### **Assessment**

The staff situation and the facilities in Germany and in China completely meet the needs of performing the training programme. The expert group is impressed by the vast and modern equipment of the University Medical Center Freiburg.

According to the expert group, the teaching staff is adequately qualified with respect to professional competence and professional practice. The teaching staff is selected on the basis of transparent criteria and will conclude an employment contract with the University of Freiburg.

As the budgetplan was not available to the experts, the finances cannot be assessed in the scope of this certification.

#### Recommendations

The expert team recommends to modify the staff list: The functions should be institutionalized by considering the fields of specialization and the qualifications rather than the specific persons. It is very important to detach the programme from the individual job holders if one wants to ensure the sustainability of the programme.

Although the experts cannot comment on the finances of the programme as they have not seen the budgetplan, they point out that any expenses for travelling should be covered completely by the tuition fees.

### 3.8 Transparency and Documentation

#### **Current Situation**

All documents describing the advanced training programme including admission conditions, studies and examination regulations as well as the module manual can be accessed on the online platform (http://www.bjcxzkq.com).

The platform also contains information on deadlines regarding admission and dates of classes. In addition, teaching material is provided on the website and via password accessible for students enrolled in the training programme. Moreover, a list of the teachers and their functions and responsibilities is supplied on the website, so that the students may find the proper contact for their study related questions. Dates for examinations are supplied via e-mail to the students and will also be announced on the limited access area of the website.

The enrolled students and future students may contact the Beijing Chengxinzan Medical Technology Co., LTD, through the website via e-mail or by telephone to get information or to receive help with their work related to the training programme. The Beijing Chengxinzan Medical Technology Co., LTD, forwards questions of the students to the teachers.

#### **Assessment**

The publication of all important documents related to the training programme on the internet platform is assessed positively by the expert group. But, as the platform is in Chinese, the experts were not able to verify its contents and its functionality.

The experts appreciate the planned web-based communication among the students and teaching staff. But, as the development of this website is still in progress and there are no enrolled students yet, the communication cannot be evaluated at the moment.

#### Recommendations

The expert group advises the scientific director and the coordinators of the programme to ensure that the terms of cooperation, the admission requirements as well as the certificate received are documented and published transparently on the online platform.

The experts suggest to consider the translation of the online platform with its information into English in order to attract international students also.

# 3.9 Quality Assurance and Development

#### **Current Situation**

Quality assurance is mainly based on regular meetings of the teaching staff as well as on students' evaluations after each module.

The students will evaluate each module with a written anonymous evaluation form that is provided by the administration of the training programme. The evaluation form is based on the evaluation forms established in undergraduate and postgraduate education at the University Medical Center, Albert-Ludwigs-University Freiburg. The administrative staff of the Albert-Ludwigs-University Freiburg summarizes the module evaluations and publishes the results semi-annually. The results are mailed to each enrolled

student per e-mail and are accessible on the online platform. The summary of the module evaluation is also published on the online platform and is accessible to students.

At the end of each class a staff meeting will be held to discuss questions of quality and possibilities of enhancement. Additionally, there is a staff meeting at the end of each module in which the results of the evaluation will be discussed amongst the Chinese and the German faculty. The feedback of the staff meetings will be assessed for the improvement of organizational and educational topics by the scientific director and the coordinators of the training programme.

As a result of the students' evaluation and the staff meetings, further topics or different teaching methods may be introduced to attain the learning objectives. The teaching material will be updated periodically by the class lecturers and reviewed by the scientific director of the training programme.

The numbers of applications and the number of applicants taking part and passing the admission examination will be surveyed and statistically evaluated to document the development of the training programme. Preceding data are not available due to the fact that the training programme has not started yet. The results will be discussed in the regular meetings of the staff at the end of each module.

#### **Assessment**

The expert team values the high commitment of the scientific director, the coordinators and the teaching staff in the development of the training programme and its quality assurance.

The experts approve that any class in China is taught jointly by one member of the Chinese and one member of the German faculty ensuring thereby a close-up surveillance of the quality of the programme. Equally essential for the quality assurance are the staff meetings after each class and additionally at the end of each module.

The experts assess the planned internal quality assurance of the advanced training programme as functional. The regular meetings after each class ensure that teachers discuss quality related issues on a regular basis and are able to react quickly to emerging problems. The meetings at the end of each module involve the complete teaching staff and thereby allow the monitoring and enhancing of the quality of the training programme on a larger scale.

The second mainstay in quality assurance is the students' evaluation, the results of which are discussed in the regular staff meetings. It allows to include student feedback closely in the development process of the programme. On the site visit, the experts were presented a sample of the planned students' evaluation and evaluate it as meeting its purpose.

#### Recommendations

The expert team suggests – especially in the initial phase of the training programme – to schedule a supplementary meeting of the complete staff not only after each module but after the completion of a whole course, e.g. after the first year. That way the advanced training programme can be discussed and improved in a more wholistic way.

In order to improve the quality assurance further it might be considered to install a scientific board with members external to the advanced training programme, and, possibly, even with members from outside the University Medical Center Freiburg. The external view of "critical friends" would give new impulses towards the continuous enhancement of the advanced training programme.

## 3.10 Equal Opportunities

#### **Current Situation**

The training programme is organized as a part-time course to allow the students to continue their daily practice. However, it does not require that the students work in a private office or clinic. If a student does not work in a private office or clinic, he/she has the opportunity to attend at clinical treatment facilities in the West China School of Stomatology to be able to prepare a patient case with a treatment plan for the class.

With respect to the fact that the students may be located throughout the country the communication in between the classes is organized on the web-based platform. The admission examinations are held at two different locations (Beijing and Chengdu) to allow applicants to take place at the location that is nearest to their place of residence.

#### **Assessment**

All applicants fulfilling the requirements for admission – a Chinese Bachelor's degree in dentistry or equivalent, at least one year of practical experience as a dentist –, passing the admission examination, and able to afford the tuition fee have the opportunity to join the course.

The programme accounts for the different starting points of the applicants for instance by providing an interpreter in class and during examinations and by offering the opportunity to attend a treatment in the West China School of Stomatology if the student is not working in a private office or clinic. A possible disadvantage arising from the residence of the applicants is being counteracted by offering two different locations for the admission examination and by providing the online platform for information and communication. The disabled students' right to an allowance for mitigating circumstances is given.

Taking these measures into consideration, the expert team deems the criterion of equal opportunities fulfilled.

#### Recommendations

The considerably high tuition fee of 13.000€ together with the additional costs for the travel expenses might hinder interested dentists to enroll in the programme. Hence, the counselor at the Beijing Chengxinzan Medical Technology Co., LTD, should strongly be encouraged to inform interested students about scholarships or grants, e.g. of the government.

The experts stress the importance of proper information of the applicants about the expected additional costs (travel expenses to Germany or fees in case of re-examinations). These additional costs should be stated and documented transparently.

## 4. Overall Assessment

The expert team congratulates the initiators of the advanced training programme to this promising project.

The overall concept fits the qualification goals of the advanced training programme. The programme is tailored to the needs of a general dentist who wants to specialize in implant dentistry. The programme objectives are clearly defined and the intended qualification goals and learning outcomes describe the competences a dentist needs in order to be able to perform implant dentistry in his/her practice. The awarded certificate enables a dentist to perform implant dentistry in his/her practice. The expert team appreciates that the curriculum covers a wide range of topics related to the daily practice of an implant dentist such as hygiene, economics, anatomy and periodontology. The expert group is concerned though, whether the time frame is sufficient to cover the multiplicity of topics. Level 6, according to the German Qualifications Framework (DQR), is adequate for this advanced training programme. The admission conditions of the programme are defined and set forth transparently.

The expert team is impressed by the commitment of the scientific director, the programme coordinators and the teaching staff. Their effort, their willingness to travel to China regularly and the long lasting cooperation between the Chinese institutions and the Medical Center, Albert-Ludwigs-University Freiburg are the prerequisites for this ambitious project. Excellent qualified staff was brought together to develop the concept and the curriculum of this advanced training programme.

The facilities and equipment are impressive and completely meet the needs for the planned advanced training programme.

To ensure the sustainability of the programme independently of the persons involved, the structure, processes and responsibilities in this cooperation should be defined more independently of the individual persons involved. Processes and responsibilities must be institutionalized in order to account for sustainability.

The experts assess the planned internal quality assurance of the advanced training programme as functional. The regular meetings after each class ensure that teachers discuss quality related issues on a regular basis and are able to react quickly to emerging problems. The meetings at the end of the module involve the complete teaching staff and thereby allow the monitoring and enhancing of the quality of the training programme on a larger scale. In order to improve the quality assurance further it might be considered to install a scientific board with members external to the advanced training programme, and, possibly, even with members from outside the University Medical Center Freiburg.

The project is a start-up of a structured evaluated university advanced training programme independent of commercial funding; therefore, slight adjustments of content, structure and examinations are to be expected after the first course.

As the programme is not running yet, the actual implementation of its concept cannot be reviewed momentarily. Hence, the expert team recommends to consider a supplementary review after the completion of the first course, e.g. after the first year, in order to assess the continuous running of the programme and in order to give advice in further developing the programme.

## 5. Certification Recommendation

According to the expert team, the advanced training programme "International Specialist in Implant Dentistry" at the University Medical Center, Albert-Ludwigs-University Freiburg in cooperation with the West China Medical University meets the criteria for the certification of an advanced training programme. Therefore, the experts recommend awarding the **evalag** certification of advanced training programmes. The expert team advised the programme representatives to consider the recommendations given in this report.

## 6. Decision of the Accreditation Commission

The Accreditation Commission certifies the advanced training programme "International Specialist in Implant Dentistry" at the University Medical Center, Albert-Ludwigs-University Freiburg, in cooperation with the West China Medical University and awards the **evalag** international label for the certification of advanced training programmes. The certification is awarded for the named cooperation only and is valid for five years.

## 7. Annex

# Annex 1 Criteria for the Certification of (Advanced) Training Programmes

# Criterion 1: Qualification Goals of the (Advanced) Training Programme

Qualification goals have been defined for the (advanced) training programme. The qualification goals of the (advanced) training programme consider the perspective on the job market and the specific needs of the target group and are communicated transparently.

# Criterion 2: Level of the (Advanced) Training Programme (Conceptual Ranking)

The published information on the (advanced) training programme unambiguously identifies at which level (acc. to DQR) the programme is placed and points out the type of qualification to be obtained through the programme, i.e. scientific degree, certificate, or confirmation of attendance, and to what extent this qualification can be credited as a course achievement.

#### Criterion 3: Concept of the (Advanced) Training Programme

The entry requirements or admission conditions are defined and set forth transparently, and there is a legal relationship between the students/participants and the provider of the (advanced) training programme. The implementation of the (advanced) training programme in terms of contents and organisation is aligned with the qualification goals and takes the specific needs of the target group into account.

#### **Criterion 4: Studyability**

Studyability ensures that the students/participants are enabled to finish a given course of studies in the predetermined timeframe.

Appropriate measures are taken to ensure the studyability of the (advanced) training programme in terms of contents and organisation, taking the different entry qualifications of the students/participants into account. The students/participants have access to general and specific support and counselling services. The persons responsible for the (advanced) training programme are known and reachable for the students/participants.

#### **Criterion 5: Scheme of Examination**

The scheme of examination (examination methods, scope of examination, timetable, possibility to resit, possibility to view examination results, feedback, etc.) is transparent and takes the specific needs of the target group into account. The examinations are designed in a way to reflect the programme modules and are aligned with the targeted competences, as far as this is relevant.

#### Criterion 6: Cooperation in the Field of (Advanced) Training

Any existing cooperation partnerships with other providers (higher education institutions, organisations, other education providers) are contractually agreed and are communicated in a transparent way. The cooperation partners arrange for a successful coordination of the contents and organisation of the (advanced) training programme.

#### **Criterion 7: Staff and Equipment**

The lecturers/teachers working in the (advanced) training programme are adequately qualified with respect to professional competence, didactics, and professional practice and were selected on the basis of transparent criteria. They have an official and transparent (employment) relationship with the institution responsible for the (advanced) training programme.

Suitable rooms and technical equipment are available to run the (advanced) training programme. The accessibility or availability of the rooms and the technical equipment takes the specific needs of the target group into account. The configuration and provision of equipment and services equally take the specific needs of the target group into account.

Funding of the (advanced) training programme is documented and conforms to the applicable legal standards.

#### **Criterion 8: Transparency and Documentation**

The formal characteristics of the (advanced) training programme (designation, form, scope, timetable, final degree, number of students/participants, costs, and legal agreements between the provider and the students/participants) have been published. The goals, contents, admission requirements, and examination requirements have been documented and made accessible to (prospective) students/participants. The responsibilities have been allocated unambiguously and the main administrative support processes (management of students/participants, planning of courses and examinations) have been documented in a transparent way for the teaching staff and the students/participants.

#### **Criterion 9: Quality Assurance and Development**

Feedback is collected from all stakeholders and used for the further development of the (advanced) training programme.

#### **Criterion 10: Equal Opportunities**

The disabled students'/participants' right to an allowance for mitigating circumstances with respect to time and formal requirements has been established within the framework of the (advanced) training programme and the applicable provisions are accessible to the public.

If applicable, information is given on financial aid options as well as other support offers, or specific support is provided.

# Annex 2

# Certification of the (Advanced) Training Programme "International Specialist in Implant Dentistry" Site Visit Schedule

Date, Time	Agenda		Participants
Wed., April 29 <sup>th</sup> 2015			
	Arrival of expert team		
17.00 – 19.30	Internal preliminary expert team discussion	Expert team & evalag	
	Key points: Identification of open issues, clarification of the questionnaire or reference framework for the discussions during the site visit		
20.00	Dinner	Expert team & evalag	Prof. Dr. K. Nelson
		(Higher) education institution	Dr. T. Flügge
Thu., April 30 <sup>th</sup> 2015			
	Transfer to university		
8.30 – 9.00	Discussion with the pro- gramme representatives (Frei- burg)	Expert team & evalag	Prof. Dr. R. Schmelzeisen
		(Higher) education institution	Prof. Dr. K. Nelson
	Key points: Concept with regard to contents, structures, methods, and implementation // Examinations: classification, concept, and design		Dr. T. Flügge
9.00 – 9.15	Meeting of the expert team	Expert team & evalag	
9.15 – 10.45	Discussion with the pro-	Expert team & evalag	Prof. Dr. X. Hu
	gramme representatives and members of the teaching staff (China, via skype)	(Higher) education institution	Prof. Dr. Yi Man
	Key points: Concept with regard to contents, structures, methods, and implementation // Examinations: classification, concept, and design // Resources, quality management, documentation, and transparency		

Date, Time	Agenda		Participants
Thu., April 30 <sup>th</sup> 2015			
10.45 – 11.15	Meeting of the expert team	Expert team & evalag	
11.15 – 12.00	Discussion with the programme		Prof. Dr. K. Nelson
	representatives and representa- tives of the University (Frei-		T. Bünemann (FRAUW)
	burg)	Expert team & evalag	D. Wack (Dean's office)
	Key points: Concept with regard to contents, structures, methods, and implementation // Examina- tions: classification, concept, and design	(Higher) education institution	Dr. T. Flügge
12.00 – 13.30	Meeting of the expert team and lunch	Expert team & evalag	
13.30 – 14.00	Inspection of the premises	Expert team & evalag	
14.00 – 14.30	Discussion with members of the teaching staff (Freiburg)  Key points: Concept with regard to contents, structures, methods, and implementation // Examina-		Prof. Dr. K. Nelson
			Prof. Dr. R. Kohal
			Prof. Dr. P. Ratka-Krüger
		Expert team & evalag (Higher) education institution	W. Seidenberger
	tions: classification, concept, and		Prof. Dr. E. Roussa
	design // Resources, quality man- agement, documentation, and transparency		Dr. T. Flügge
14.30 – 16.30	Internal meeting of the expert team	Expert team & evalag	
16.30 – 17.00	Feedback to programme management	Expert team & evalag	Prof. Dr. K. Nelson,
		(Higher) education institution	Dr. T. Flügge
	Key points: The expert team sum- marizes the impressions gained during the visit; the programme representatives and the repre- sentatives of the University have the opportunity to supply addi- tional explanations or clarify is- sues/misunderstandings		
арргох. 17.00	marizes the impressions gained during the visit; the programme representatives and the representatives of the University have the opportunity to supply additional explanations or clarify is-		