

Constitution

Centre for Bioinformatics and Computational Biology (CBCB)

Stellenbosch University

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Approved by

Academic Planning Committee (1 November 2017)

Faculty Board of the Faculty of Science (2 November 2017)

Faculty Board AgriSciences (1 November 2017)

Faculty Board Medicine & Human Health (21 November 2017)

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1. Name

The name of the proposed centre is the Centre for Bioinformatics and Computational Biology, abbreviated as CBCB.

Although “institutes” as opposed to “centres” are generally associated with trans-faculty initiatives at Stellenbosch University, it is proposed to call this type 2 entity a “centre” in keeping with the naming convention of comparable academic entities at top-tier universities internationally.

2. *Raison d'être*

Bioinformatics and Computational Biology entails the use of computational infrastructure to store, retrieve, distribute and analyse the enormous volumes of raw data associated with many fields in modern biology. The advent of full genome sequencing initiatives in the 1990s such as the human genome project, required computers to distil meaningful insight into nucleotide sequences that were billions of basepairs in length. Bioinformatics soon became an essential component of all high throughput (large sample sets) and high dimensional (large number of category sets) activities in biology, including genomics, proteomics, metabolomics, and phylogenomics, to name but a small representative list. Many research specialisations in contemporary biology are simply not possible without bioinformatics support.

Computational Biology involves the development and use of analytical and theoretical methods, including mathematical modelling and computer simulation, to study biological systems. For the purpose of this document, Bioinformatics and Computational Biology are collectively referred to as Bioinformatics.

Bioinformatics is a multidisciplinary field, and requires expertise in computer science, biochemistry, microbiology, genetics, statistics and mathematics. Training in bioinformatics does not simply require formal training in each of these disciplines, but also the integration of this knowledge and coherent application thereof to problems in biology. Research in modern biology, similarly, requires cross application of knowledge in an integrated fashion. The multidisciplinary nature of bioinformatics involves integration of disciplines that did not traditionally form part of streams at universities, such as computer science and biochemistry, or microbiology and mathematics. Therefore, to address the requirement for multidisciplinary training in bioinformatics, the establishment of new training programs that combine the required constituent fields are needed. To nurture and promote bioinformatics research will require an organisational entity that can facilitate the integration of these disciplines, promote the integration of skills and allow productive intellectual exchange and discussion in addressing bioinformatics questions. In other words, an entity that can facilitate the formation of a critical mass in bioinformatics research expertise.

A Centre for Bioinformatics and Computational Biology represents such an entity that can develop and manage training in bioinformatics and computational biology at under- and post-graduate levels, and provides the academic space in which research in bioinformatics is practised. Such a centre will be significantly more efficient and focussed than an attempt to house such training and research in a fragmented fashion in existing academic departments that offer only a single discipline in the multidisciplinary bioinformatics spectrum.

It is therefore proposed to establish a type 2 entity at Stellenbosch University, the Centre for Bioinformatics and Computational Biology, which will operate in a trans-faculty and trans-campus manner with Aims, a Mission and a constitution as detailed in this document.

3. Aims

The aims of the CBCB are to perform research, training and support in bioinformatics in a vibrant environment that fosters academic excellence, facilitating the immersive engagement of students and staff with computational and data intensive activities in biology and the life sciences, and promoting the discipline of bioinformatics at Stellenbosch University.

4. Mission

- To provide a critical mass of expertise in a nurturing environment that will contribute to the advancement of bioinformatics and computational biology at Stellenbosch University.
- To perform novel and innovative research in bioinformatics, including the development of resources and tools to pursue important questions in molecular life sciences and biology that will contribute to our deeper understanding of the chemistry of life, and to the advancement of human, plant and animal health and human quality of life
- To train students in the discipline of bioinformatics and computational biology to enable them to pursue careers as bioinformaticians and computational biologists in research and in development environments in academia and in industry
- To provide training at several levels to equip students and researchers with the skills necessary to effectively utilize bioinformatics and computational biology in their own research
- To provide bioinformatics support and services to ongoing and to new research projects
- To integrate with the national, African, and international network of training and research activities and collaborations in the bioinformatics and computational biology fields

5. Core Activities

As set out in the Aims and Mission statements above, the core activities in the CBCB will encompass research, training, and service and support.

5.1. Research

The CBCB will promote outstanding research in bioinformatics and computational biology. This will include self-initiated research projects, comprising conceptualisation, grant application and research execution, making use of local and offsite computational infrastructure. Apart from in-house research, the CBCB will also be engaged in collaborative research projects across faculties on the campuses of Stellenbosch University, as well as with other research groups nationally and internationally.

5.2. Training, degree programs and workshops

Training is planned at an under-graduate and a post-graduate level. In addition, specialised workshops on bioinformatics topics of interest to biologists on the SU campuses will be presented by staff and post-docs of the CBCB, as well as by invited national and international speakers.

Seminars will be organised in the CBCB on a frequent basis, and will include members of staff, post-doctoral fellows and post-graduate students, in accordance with the requirements for the relevant degrees. This seminar program will facilitate cohesion, intellectual exchange and contribute to the development of a critical mass that includes all SU campuses. Journal discussion groups (“journal clubs”) and research progress (“group”) meetings will be held as arranged by each PI.

5.2.1. Degree programs

The CBCB will be responsible for the design and planning of an under-graduate stream in Bioinformatics, resulting in a B.Sc. degree. The B.Sc. stream in Bioinformatics will form part of the program in Mathematical Sciences, managed by the Department of Mathematical Sciences. Registration of post-graduate B.Sc. Hons (Bioinformatics), M.Sc. (Bioinformatics) and Ph.D. (Bioinformatics) degrees will be managed by the CBCB.

The under-graduate B.Sc. degree (stream: Bioinformatics) will only be conferred by the faculty of Science. In contrast, the B.Sc. Hons, M.Sc. and Ph.D. degrees in Bioinformatics will be conferred by either of the faculties of Science, Medicine & Health Sciences or AgriSciences. This will remove the proclivity to duplicate bioinformatics training in different faculties, and ensure that post-graduate students can be supervised full-time in faculties other than the faculty of Science. The diffusion of bioinformatics into many different fields in biology and informatics means that it has become essential to many different academic departments in several faculties at SU. A situation where the post-graduate degree programme was only available in a single faculty would likely result in several faculties registering degree programmes in bioinformatics, in order to retain and grow domain-specific bioinformatics expertise, and to be able to recruit bioinformatics students at a post-graduate level. However, if students can be supervised in the laboratories of Associate Members (see below) of the CBCB, and if degrees registered by the CBCB can be conferred in one of several different faculties, this will impart a centripetal property to the CBCB, and contribute to the establishment of a single bioinformatics hub. This will also benefit the identification and pursuit of trans-disciplinary questions of high scientific impact, and contribute immensely to the growth of a critical mass in bioinformatics and computational biology at SU. In this regard, it is imperative that the CBCB span several faculties.

The CBCB will be the academic home and administrative centre for all bioinformatics-related degrees. The CBCB will thus act like an academic department, managing the academic and some administrative aspects of the under-graduate and post-graduate degree programs in bioinformatics. This will include the organization of appropriate lecturing facilities, the organisation and presentation of lectures, practical sessions and tutorials, student assessment including tests and exams, and the appointment of external moderators for bioinformatics courses. The CBCB will also be responsible for organizing the appointment of internal and external examiners for M.Sc. theses, external examiners for Ph.D. theses, and ensuring verification of thesis corrections. The Director of the CBCB will be responsible for managing these actions, and submitting the required documentation to appropriate faculty committees, the faculty board of the appropriate faculties, and the senate of SU.

5.3. Services

The CBCB will be responsible for providing support and services in bioinformatics and computational biology to students and staff who require it in their training and the execution of their research. Typically, a student or staff member will approach the CBCB for advice on a bioinformatics related issue, or with data that require analysis or interpretation. The centre will handle all such requests and provide help and support. The request will be assigned to a specific individual in the CBCB who has the necessary expertise to address the question effectively. An anticipated timeframe for the support or training will be provided, and training sessions or meetings organised to provide the training, discuss progress or provide feedback with a completed analysis. The CBCB regards service provision as integral to the nurturing of bioinformatics and computation biology at SU, and will provide it in the most efficient timeframe possible. The assignment and scheduling of support requests will initially be handled by the Management Committee, who will be responsible for the development of an effective triage system.

Where significant intellectual input or effort is involved, it is expected that the CBCB contribution will be rewarded with co-authorship of the relevant publication. Authorship will be discussed early in the service schedule to avoid any misunderstanding. Where the contribution does not warrant co-authorship, it is expected that the contribution from the CBCB will be recognized in the Acknowledgements section of the relevant publication.

6. Collaboration and Networking

The CBCB will expand collaborations and networking with established groupings in South Africa, Africa and internationally. This will include the strengthening of existing collaborations on research projects and training initiatives, such as regional training courses, “distributed classroom” training initiatives, national bioinformatics initiatives, professional societies and networks, such as H3ABioNet. The CBCB will also contribute by providing space in local training workshops to students and staff from groupings and institutes that form part of such networks.

7. Establishment of personnel

7.1. Personnel categories

There will be two categories of personnel in the CBCB: Members and Associate Members. The sole difference between Members and Associate Members is the line manager. The line manager of Members will lie within the CBCB, whereas the line managers of Associate Members will be outside of the CBCB, most likely within an academic department that has an interest in the CBCB.

7.2. Founding personnel

The “founding member” of the CBCB will be the “founding Director”, and the line manager of the founding Director will be the Dean of Science. The founding Director will be academically associated with a department that matches his/her academic credentials. This will provide an “academic home” through which all administrative functions, such as under-graduate and post-graduate teaching, post-graduate supervision, publication, grant administration, and academic administration normally associated with a member of staff, can occur until such time that the CBCB is established and can fulfil its own administrative functions in terms of Paragraph 5.2.1.

7.3. Members

The “home” academic department matching the academic background of the founding Director will remain after the CBCB is formally established as a type 2 entity. New personnel may be appointed in the CBCB, and will be Members of the CBCB. Members will be physically housed in the CBCB. Members will be exclusively involved in bioinformatics, and will be fully integrated into the activities associated with achieving the Aims and Mission of the CBCB. It is envisioned that personnel will be occupied with under-graduate teaching, post-graduate supervision, presentation of training workshops, providing assistance to students and academics who require help with bioinformatics in research projects, publication of original bioinformatics research, and generating grant income. In other words, the activities generally associated with a generic academic member of staff. The Director of the CBCB will be the line manager of the Members of the CBCB. Research grant, subsidy and other income generated by CBCB personnel (Members and Associate Members) in the execution of their duties, including an agreed percentage of the institutional subsidy associated with student training and registration fees, will be allocated to the annual CBCB budget, as would normally be the case for an academic department. This financial assignment will be in compliance to all the rules and regulations of the university finance division and respective faculties of Stellenbosch University.

Personnel are appointed in the CBCB in accordance with all Human Resources (HR) rules applicable to normal academic departments. All HR activities associated with the management of personnel in academic departments will be managed in an identical fashion in the CBCB, with the Director fulfilling the role of the departmental chairperson. This includes oversight of personnel appointment, personnel performance management, personnel discipline, personnel promotion, vacation, sabbatical leave, stipulation of work agreements, and retirement. Personnel salaries are channelled through the CBCB, and must be reflected in the annual budget of the CBCB.

7.4. Associate Members

Personnel with a substantial part of their academic activity involving teaching and research in bioinformatics, but who are academically associated with any other department at Stellenbosch University, may become an Associate Member of the CBCB. The reason for the existence of Associate Members is to gain maximum benefit from the presence of scarce bioinformatics skills at SU, and to optimize the contribution to a critical mass in bioinformatics. The CBCB is therefore an academic hub that allows the synergistic interaction of bioinformaticians at SU. The benefit to staff who become Associate Members is the tightly geared interaction with other accomplished bioinformaticians at SU, inclusion and participation in workshops, seminars and journal clubs, inclusion in combined grant applications, and having access to bioinformatics students, particularly the ability to train post-graduate students in B.Sc. Hons, M.Sc. and Ph.D. degrees in bioinformatics. The main supervisor of a post-graduate student in the bioinformatics stream must be a Member or Associate Member of the CBCB to allow appropriate quality assurance in line with CHE and institutional requirements. Co-supervisors of post-graduate students in bioinformatics need not be affiliated with the CBCB.

The line manager of an Associate Member in the relevant department or centre or institute will remain the line manager, and Associate Members will physically remain within their home departments. Associate Members will be involved in under-graduate teaching, post-graduate supervision and research at the CBCB, like a Member. Teaching may be performed by video streaming or remote classroom means. It is envisioned that Associate Members will recruit students from the under-graduate stream in bioinformatics that will be managed by the CBCB, and may supervise post-graduate students registered for B.Sc. Hons, M.Sc. and Ph.D. degrees in bioinformatics. It is proposed that any subsidy income generated by a post-graduate bioinformatics student or publication based on bioinformatics research of an Associate Member may be shared by the CBCB and the home department of the Associate Member at a ratio that will be discussed and agreed to by the Governing Board and the relevant department before supervision starts. This split is only applicable to the supervision and publications produced from the thesis research projects of students that are registered for post-graduate degree courses in bioinformatics. Thus, any income generated by the supervision by Associate Members of students that are not registered for bioinformatics degrees remain with the home department. Similarly, the subsidy earned from the publication of a paper based on the thesis research project of a student who was not registered for a degree in bioinformatics, and to which an Associate Member made a bioinformatics contribution, will remain with the home department. It is foreseen that there will be unusual cases that will be an exception. Examples of such cases include a situation where a student who is registered for a bioinformatics degree, is a co-author of a paper not related to the thesis research project. Another example is when some results from the thesis research project of a bioinformatics student forms a minor part of another paper. Such exceptions will be handled on a case-by-case basis by the MC of the CBCB, where the optimal solution sought will be both financially simple and equitable to both the home department and the CBCB.

7.5. Research Associates

Post-doctoral fellows are generally the most productive at a practical level to generate scientific output. The CBCB will therefore place an emphasis on the recruitment of post-doctoral fellows to drive scientific productivity. To this end an active program to recruit Research Associates will be implemented. Apart from normal multi-year post-doctoral appointments, Research Associates will also be housed for shorter periods of time, to encourage collaborative visits and scientific exchange with research groups nationally and internationally. Funding for such visits will be procured as part of normal grant applications and from special funding opportunities.

8. Organizational Structure

The structure of the CBCB is represented in Figure 1. The Director reports to the Dean of Science as line manager, as well as to the Governing Board, which plays an oversight role for the centre. The Deans of faculties with an interest in the CBCB or their delegates sit on the Governing Board. The Director is also an *ex officio* member of the Governing Board to simplify communication. The Deans report to their Faculty Boards, and to the Senate. Personnel in the CBCB (Members) report to the Director as line manager, and Associate Members report to the line managers of their home departments or centres or institutes. A Management Committee of at least three staff members, representing different faculties, where possible, including the Director, will actively support the Director in the management of the CBCB. The personnel in the CBCB, both Members and Associate Members, will form individual or combined research groups, reflecting research specialities, and will be responsible as group leader or leaders for post-graduate students performing research in the group.

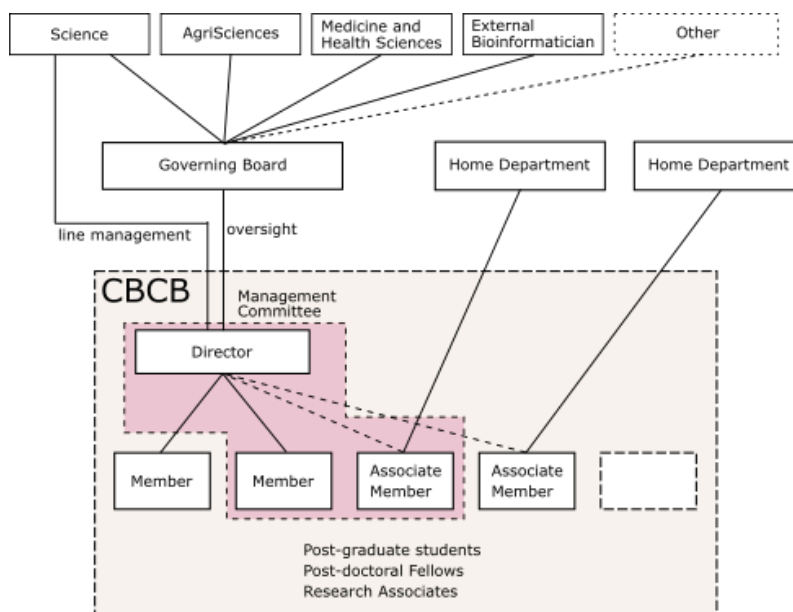


Figure 1. Organization structure of the Centre for Bioinformatics and Computational Biology. The CBCB is headed by a Director who is responsible for the daily functioning of the centre that is formed by individual members of staff, who are typically independent Principal Investigators running their own research programs in Bioinformatics, and supervising post-graduate students and post-doctoral fellows in their groups. The Management Committee is formed by staff members and the Director, and is responsible for planning and implementing operational issues and management procedures. Members of the CBCB report to the Director, and Associate Members report to their line-managers in

their respective home departments. The Director reports to the Dean of Science for line manager functionality, as well as to the Governing Board, for operational oversight of the centre. The Governing Board is composed of the Deans from the participating faculties or their delegates, and an external, expert bioinformatician. The Deans or their delegates represent the various faculties.

8.1. Governing Board

8.1.1. Composition

The Governing Board (GB) will be constituted by at least one accomplished bioinformatician from a tertiary institute in South Africa, other than Stellenbosch University, as well as the Deans or their delegates from faculties at Stellenbosch University that have an interest in, and benefit from the activities of, the CBCB. The Director will be an *ex officio* member of the GB to facilitate efficient communication. It is thus foreseen that Deans (or their proxies, such as vice-Deans) from the faculties of Science, AgriSciences and Medicine & Health Sciences will be members of the GB. The chairperson of the board will be elected by the members of the board. The chairperson will serve for a period of 3 years to allow for continuity. A member may not serve as chairperson for 2 consecutive terms, but there is no limit to the number of non-consecutive terms that may be served.

The Deans will be permanent members of the board *ex officio*. The expert, independent bioinformatician will serve for a period of 3 years, and may also not serve for two consecutive terms, but there is no limit to the number of non-consecutive terms that may be served. The Board may co-opt additional *ad hoc* members where expert input or advice is required, but such *ad hoc* board members will be board members *pro tempore* and have a clearly defined period of service, and will have no right of vote on the board.

When the expert bioinformatician member must be replaced, the board will request nominations from the board members. The board may also request advice in this regard from non-members of the board, including from the CBCB. Where more than one nomination is received, the nominee pool will be reduced to a single nomination by consensus. Since it is possible that the single nomination will not be in a position to accept the position, it is likely that the board may have an ordered list of nominees who will be approached, starting with the most preferred candidate, until a nominee is found who is willing to serve on the board.

The chairperson of the board is responsible for administering all communication with the board members, organising the annual meeting of the board, providing an agenda, inviting items for discussion to be placed on the agenda, keeping accurate minutes of the meeting, requesting confirmation of the minutes from board members, and keeping all minutes and documents handled by the board, safely. When the term of the chairperson ends, all such documents (both hard copy and electronic storage, if available) must be passed to the incoming chairperson for similar safekeeping. Decisions by the board will be by consensus. Where this is not possible, a decision is made by majority vote. In the case of a tied vote, the Chairperson of the board has the deciding vote.

The CBCB Director can, at any time, request advice or clarification from the board. If necessary, the board can convene at any time if discussion is required to respond appropriately to the request of the Director. Such an *ad hoc* meeting may proceed by electronic means, such as by telephone, online conference or e-mail.

8.1.2. Mandate & Functions

The governing board will provide an oversight function to the CBCB. This includes ensuring that the CBCB operates in line with its stated Aims and Mission. The GB will represent and promote the interests of the CBCB in the higher management structures of the University. The GB will also provide

guidance to the CBCB to achieve its Aims, and will review and comment on the Annual Report and Annual Business Plan that will be submitted to the GB by the Director of the CBCB.

The GB can modify or adapt the Aims or Mission or the Constitution of the CBCB by a 2/3 majority vote of the full board, and in line with all rules and regulations that govern the constitutions of type 2 entities at SU.

8.1.2.1. Annual Report

The board will receive once a year, on 31 October, or on a date agreed with the Director of the CBCB, an Annual Report. This report will contain an overview of the research, training and service activities of the CBCB in the preceding 12 month period. The report will specifically detail the following, as well as any specific information requested by the GB:

- The number of students who are registered for B.Sc., B.Sc. Hons, M.Sc. and Ph.D. degree programs in bioinformatics at SU. In the case of post-graduate students, the proposed thesis titles and main as well as co-supervisors must be provided. Students attached to Members and Associate Members must be indicated.
- The number of post-doctoral fellows and Research Associates accommodated in the CBCB.
- The number and level of students that graduated in the preceding year, research projects that are active in the CBCB, or in which the CBCB is involved.
- All services rendered, i.e., defined assistance with research projects active in other academic departments or faculties, for which bioinformatics support was given at a level that does not constitute co-supervision. The research project, a brief description of the support, and the time spent on the activity must be given.
- A listing and description of all workshops presented by the CBCB or in which the CBCB was involved must be given, including the number of students and their academic affiliation.
- Research highlights from the preceding year, peer-reviewed papers, conference posters and talks (national and international), invited seminars, and popular communications (television or radio talks/interviews and popular public lectures).
- Outreach/recruitment activities to other universities and high schools to promote the SU bioinformatics degree programs must be provided.
- The budget of the current year, and final budget of the previous year, stating incomes, including all research grant awards, institutional subsidy earnings (teaching input and output, research output and student registration fees), other income from the university, and other sources (donations, contracts, software licenses, etc.), and expenditures, including salaries, diverse, infrastructure, travel, student support, training and workshop materials, equipment, maintenance, and software licenses. Since the university financial year runs from 1 January to 31 December, the budget submitted on 31 October of a year will be a provisional budget. For this reason, the final budget from the previous year must also be submitted. This ensures that the GB receives final budgets.
- The Annual Report will conclude with a brief statement of future plans.

The GB will receive, approve and pass the Annual Report of the CBCB to the respective Faculty Boards represented on the GB.

8.1.2.2. Annual Business Plan

In addition to the Annual Report, the Director of the CBCB will also be responsible to submit to the chairperson of the Governing Board an Annual Business Plan on 30 November or on a date agreed to by the chairperson and Director.

The Governing Board will receive, study and comment on the annual business plan. The successful implementation of the business plan will be verified by referencing the subsequent Annual Report.

The Annual Business plan is forward-looking document detailing specific activities planned for the subsequent year, and will also contain a 5-year rolling budget. Specifically, the Business Plan will contain the following, as well as any additional items requested by the GB:

- A breakdown on the number of continuing students (based on the numbers in the current year) that are expected to continue with their studies in the next year.
- A brief overview of ongoing research projects.
- A description of workshops and training sessions planned for the year.
- A detailed, proposed 5-year rolling budget. The budget will include expenses and incomes, specifically cost of new equipment, software, software licenses, travel and conferences, workshops, subscriptions, internet and telephone, HPC and cloud costs, training materials, infrastructure maintenance. Incomes listed will include income from institutional subsidies, research grants, commercial activities such as contract work and service provision, training, such as workshops and short courses, other incomes from the university, and other sources.

It is implicitly understood that the proposed 5-year rolling budget will reflect self-sufficiency and financial sustainability. Clear plans must be in place to achieve and maintain financial self-sufficiency.

8.1.3. Meetings

The Governing Board will meet at least once in every academic year, at a date organised by the chairperson and agreed to by the majority of board members. Additional meetings may be called on an *ad hoc* basis, as required. Board members need not be physically present at a board meeting, and may participate via electronic means, such as Skype, telephone etc. The board may only make decisions or execute a vote when a quorum is present. A quorum is defined as at least 50%+1 permanent board members. In the case of a tied vote, the chairperson has one additional vote to break a tie.

8.2. Management Committee

A Management Committee (MC) will be formed to assist the Director with the smooth day-to-day operation of the CBCB and to assist the Director to achieve the Aims and the Missions of the CBCB.

8.2.1. Composition

The MC of the CBCB will be composed of the Director and at least two individuals, of which one must be a Member and the other an Associate Member and representing different faculties, if possible. The MC can decide to expand the number of individuals serving on the MC as required for the proper functioning of the MC to the benefit of the CBCB. Where the MC is enlarged to more than 3 members, there shall always be at least one Member and one Associate Member on the committee, if possible. If the number of Members or Associate Members at SU is such that a 3 member MC cannot be formed, the Director may approach the GB for permission to appoint a non-member of the CBCB to the MC for the MC to function as envisioned. The presence of both Associate Members and Members on the MC is to ensure that the interest of both group are represented at management level.

8.2.2. Mandate & Functions

The role of the Management Committee is to assist the Director with ensuring the smooth operation of the CBCB, including all activities related to achieving the Aims and Mission of the CBCB. The Management Committee is an advisory committee, and can deliberate on points and provide advice to the Director. Specific tasks or portfolios can be delegated by the Director to one or more members

of the MC. In particular, the MC will assist the Director in overseeing the organization and management of the Bioinformatics B.Sc. degree, including development of the curriculum, distribution of lecturing responsibilities, quality assurance in terms of delivered lectures, appointment of external moderators, and ensuring organization of tests, exams and special exams. Similarly, the MC will assist the Director in the selection of students into the B.Sc. Hons, M.Sc. and Ph.D. degree programs in bioinformatics, and with the review and acceptance of proposed thesis examiners and final recommendation regarding the award of a degree, in compliance with the rules and regulations of SU.

8.2.3. Meetings

The MC will meet as often as is required for it to serve its purpose, but, at a minimum, will meet at least once a month. Any member of the MC can request a meeting of the MC, but the meeting will be called by the Director. The Director is responsible to request agenda items, and circulate an agenda timeously. The Director is also responsible for keeping minutes of the meeting, and verifying the accuracy of the minutes at the subsequent meeting. The agendas and minutes must be safely kept by the Director, and constitute official records of SU.

8.3. Director of the CBCB

8.3.1. Appointment

The “founding Director” will be involved in establishing the CBCB. To facilitate the founding of the CBCB, the “founding Director” will be administratively affiliated with an academic department matching his or her academic expertise. The appointment of subsequent Directors will proceed according to the normal practise and rules of HR at SU. The GB will be responsible for managing the advertisement, selection process and interviewing of candidates, and will manage the appointment of the Director. The GB will act as the “selection committee”. The GB may co-opt additional members to the “selection committee” with specific specialities that will contribute to the selection of an appropriate candidate during the selection and interviewing process.

The position of Director must be advertised in one or more prominent national or international media.

The Director of the CBCB will be a full-time, permanent academic appointment. Once the CBCB is established as a type 2 entity, the Director will be appointed in the CBCB. The line manager of the Director will initially be the Dean of Science. The GB can subsequently make recommendations and institutionally formalise the most suitable line manager. However, since the initiative to establish the CBCB was led by the faculty of Science, it is likely that the Dean of Science will remain the line manager, since space in the Science faculty is also likely to be occupied by the CBCB. The line manager is expected to be at least at the level of vice-Dean.

The appointment as Director will be at Associate Professor or Professor level, unless otherwise recommended by the GB.

8.3.2. Conditions of Service

The job description of the Director matches the generic description of a departmental chairperson, and the Director will have similar responsibilities. These include overseeing the overall management of the CBCB, according to the Aims and Mission of the CBCB. The Director will be responsible for preparing an Annual Business Plan with budget, as well as the Annual Report, reporting on achievements of the CBCB in the preceding year. The content proposed for the Annual Business Plan and Annual Report were detailed above.

The Director will also be responsible for the management of appointed personnel (“Members”) according to the relevant rules and guidelines of Human Resources division at SU. In particular, the

Director will act as line manager to all Members and any support personnel. The Director is also responsible to manage the CBCB according to the stated Aims and Mission stated, or as modified by the GB. The GB may also directly make recommendations regarding the operation or management of the CBCB to the Director. The Director will also manage the activities of Associate Members in the CBCB regarding teaching, training and research in bioinformatics that are linked to the CBCB, but will not be the line manager for Associate Members.

The Director will be responsible for overseeing and managing the CBCB, including management of all facets of the under-graduate stream in Bioinformatics, as well as the B.Sc. Hons, M.Sc. and Ph.D. degrees in Bioinformatics. The Director will also manage the selection of appropriate students to post-graduate programs, and overseeing the operation of research and research training in the CBCB. In addition, the Director will ensure that the preparation of appropriate research proposals are submitted at suitable intervals by all research groups in the CBCB, application to appropriate special grant programs are made, and that there is full compliance with research ethics rules of SU. The Director will promote a vibrant research culture in the CBCB, including the organization of an active seminar program and discussion groups (journal clubs).

8.3.3. Remuneration

The salary scale of the Director will be according to the rules and guidelines of SU, and will be at a salary scale commensurate with the qualification and experience of the candidate. The GB may recommend a scarce skills supplement to the salary, or allow supplementation of the salary from a clear salary line item in the budget of an awarded grant. Such a salary complement must be in line with all applicable rules of SU.

9. Space and facilities

The CBCB is currently housed in rooms 2010 and 2009a of the AI Perold building. This is sufficient for an office and meeting room for the Director, and a computer laboratory that can house 5 full-time post-graduate students or post-doctoral fellows. The CBCB also has access to a committee room where training sessions and workshops can be held if attendees supply their own computers. Larger workshops will be held in NARGA computer facilities. This space is currently sufficient, but if the size of the post-graduate and post-doctoral pool sustainably grows to more than 5 persons, additional Members join the CBCB, or Research Associates need accommodation, it is foreseen that additional space will have to be found to house the academic activities of the CBCB. At such a time the spatial requirements will be discussed with the GB and Faculty Managers.

The initial computer infrastructure used for dedicated bioinformatics training will be purchased from an equipment grant allocated to the Director. Additional or replacement desktop and notebook computers for students will be purchased by CBCB Members and Associate Members from research grants as the needs arise. The major computational power that will be used by the CBCB is the HPCs at Stellenbosch University and cloud-based HPCs, where cost of this utilization will form part of the research strategy budget of the ICT. Where required, time on HPCs may also be supported from grants of individual CBCB PI's. The Director will be responsible to identify specific infrastructure needs and manage the preparation of applications to university and outside funding bodies for financial awards to address such infrastructure needs.

10. Finances

The Director, in conjunction with the Management Committee, is responsible for the proper financial management of the financial affairs of the CBCB in accordance with all rules of the Finances Division of SU, including all requirements for bookkeeping and auditing of financial statements.

11. Research, Publications, Intellectual Property

Any Intellectual Property generated by the activities of the CBCB will be managed according to the rules and guidelines of SU

12. Legal Entity

Stellenbosch University will act as the legal entity of the CBCB for Bioinformatics

13. Amendments to the Constitution

Amendments to the Constitution of the CBCB may be made by the GB following acceptance by a 2/3 majority vote of the GB, and in accordance with the rules and guidelines of type 2 entities of SU.