

Statute of the NCCR Plant survival 2.10.2009

Statute of the NCCR "Plant survival in natural and agricultural ecosystems"

All members of the National Centre of Competence in Research "*Plant Survival in natural and agricultural ecosystems*" (hereafter "the NCCR") will research various aspects of plant survival. All members of the NCCR commit themselves to achieve their research goals in the spirit of good cooperation and active participation in all measures foreseen to further the inter- and transdisciplinary interactions within the NCCR and with our partners.

§1 Objectives of the NCCR "Plant Survival"

The National Centre of Competence in Research "*Plant Survival in natural and agricultural ecosystems*" (hereafter "the NCCR") will devote its research efforts to the understanding of mechanisms of plant survival. In the Third Phase, the NCCR Plant Survival will be built on its most successful projects with a fine balance between scientific excellence and transfer of technology. The four workpackages cover the domains of plant molecular physiology (WP1), interactions between plants, insects and pathogens (WP2) and plant population ecology (WP3), whereas WP4 develops models and novel statistical methods for each of these domains.

Workpackage 1 Plant fitness and abiotic interactions

Chloroplast metabolism is essential for growth and plant survival. The group of Kessler will address how plants make and degrade starch, which is the key to carbon allocation. Special mechanisms help plants support chloroplast metabolism under changing light conditions. This research will focus on chloroplast relocation, anti-oxidant membrane protection involving plastoglobules as well as rapid removal of chlorophyll degradation products.

The most widespread and successful strategy of plants to improve nutrient acquisition is to form symbioses with arbuscular mycorrhizal fungi. The group of Martinoia envisages to create the knowledge required for the generation of fertilizer-efficient plants by exploring the regulation and signaling of mycorrhizal colonization in response to nutrient levels and plant secondary products and the examination of sequence polymorphisms across diverse maize lines.

Workpackage 2 Plant antagonists and mutualists

This work package will study plant traits that have evolved to attract mutualists and ward off antagonists and how specific insects and nematodes have adapted to circumvent or exploit these plant traits. The initial aim is a fundamental understanding of the genetic, chemical, and physiological mechanisms of these traits, as well as of the behavioural and ecological interactions that they mediate. This knowledge then will be used to develop and test novel methods for the control of major pests and to assure pollination. There will be a balance between projects that focus on basic research using advanced scientific methods and expertise to study relevant physiological and ecological mechanisms in plants and systems that have proven to be practical models, and projects that will directly work on the development, implementation and assessment of methods to improve protection and pollination in plants of economic importance. The work package will build on several successful projects of the Second Phase of the NCCR with the ultimate aim of full application of our know-how to protect and improve cultivated plants.

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Workpackage 3 Spread and impact of invasive plants

Workpackage 3 will build on strengths from the Second Phase of the NCCR and integrate new expertise to investigate causes of species invasiveness versus rarity, of habitat invasibility and of the impact of biological invasions on ecosystems. Using molecular analyses, experimental and modelling approaches, the first subproject will refine and extend the investigations on the causes of invasiveness within the model species *Centaurea maculosa* by: 1) focusing on traits at the level of haplotypes and cytotypes from both the native and invaded ranges, 2) enlarging the studies to ecosystem impact and habitat recovery, and 3) extending the models of niche evolution and spread simulations to other taxa, more particularly to the whole *Centaurea* genus and to the species considered experimentally in subproject 2. This subproject will further up-scale the study of invasiveness, invasibility and the impact of invasion to a large number of invasive and non-invasive species to allow us more general predictions by using comparative experiments and meta-analyses of published studies. Because, in contrast to invasive alien species, many native species are declining in the landscape, we will also assess traits associated with rarity.

Workpackage 4 Statistics and modelling

The statistics and modelling group will further develop procedures for the analysis of high-dimensional data, for example metabolite profiles or genetic data, will tackle the dynamic modelling of food- and pollination-webs, and plans to undertake new work on the spatial modelling of species distributions. In each case there should be new methodological work that will support collaborative research within and outside the NCCR.

Knowledge and technology

In the third and last Phase of the NCCR, the technology transfer (TT) activities will aim at consolidating what has been achieved by the Partners in the previous Phases. Particular emphasis will be put on increasing the efforts to financially exploit the results and the intellectual property (IP) generated in the different Phases of the NCCR through an efficient policy of licensing to or partnering with third parties. For the Phase III of the NCCR the organisation of the TT activities will be taken over by the Technology Transfer Office (TTO) of the University of Neuchâtel (Coordinating TTO) in collaboration with the NCCR Management and Coordination Unit.

Education and training

The Faculty of Sciences of the University of Neuchâtel has voted for the integration of the doctoral programme in the Institute of Biology and will thereby ensure its continuation after the end of the NCCR. The rectorat has committed to finance the programme during the Third Phase and beyond.

The NCCR PhD students have the obligation to take part of one of the doctoral programmes established in the Swiss Institutions.

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§ 2 Bodies and assemblies

§ 2.1 Executive bodies of the NCCR

§ 2.1.1 NCCR Director

The director of the NCCR is Professor Ted Turlings from the home institution, the University of Neuchâtel.

§ 2.1.2 NCCR Directorial Committee

The Directorial Committee is composed of 5 permanent members:

1. The Director of the NCCR, who is a professor of the University of Neuchâtel and will also be the chairman of the Committee
2. The Deputy Director from the University Neuchâtel
3. A Vice-Director from the University of Fribourg
4. A Vice-Director from the University of Bern
5. The Coordinator, employed by the University of Neuchâtel

With the agreement of a majority of the permanent members, the Committee can be extended with temporary members, usually heads of other bodies or assemblies of the NCCR.

§ 2.1.3 Sub-projects

Each Sub-project consists of a Sub-project Leader (SPL) and participating scientists. They employ postdoctoral research associates, Ph.D. students and technicians to reach their research goals.

§ 2.2 Consulting bodies of the NCCR

§ 2.2.1 Scientific coordination committee

The members of the scientific coordination assembly are:

1. All Sub-project Leader (SPL)
2. NCCR directorial committee
3. Invited partners of the NCCR and invited guests

SPLs can be accompanied or represented by participants of their individual project.

§ 2.3. Assemblies of the NCCR

§ 2.3.1 Assembly of NCCR participants

The assembly of NCCR participants consists of all NCCR participants within and outside of the home institution, and is open to NCCR partners and guests, as well as to all graduate and post-graduate NCCR researchers.

§ 2.3.2 General assembly

The general assembly comprises all persons involved in the project, which are Sub-project Leader, participants, postdocs, graduate students, NCCR partners and users.

§ 2.4 Management and Coordination office

The management and coordination office consists of:

1. The Scientific Coordinator (head of the unit) employed by the University of Neuchâtel
2. The Assistant Coordinator
3. The Head Secretary
4. The Administrative Secretary
5. The Finance Officers
6. The Communication Officer

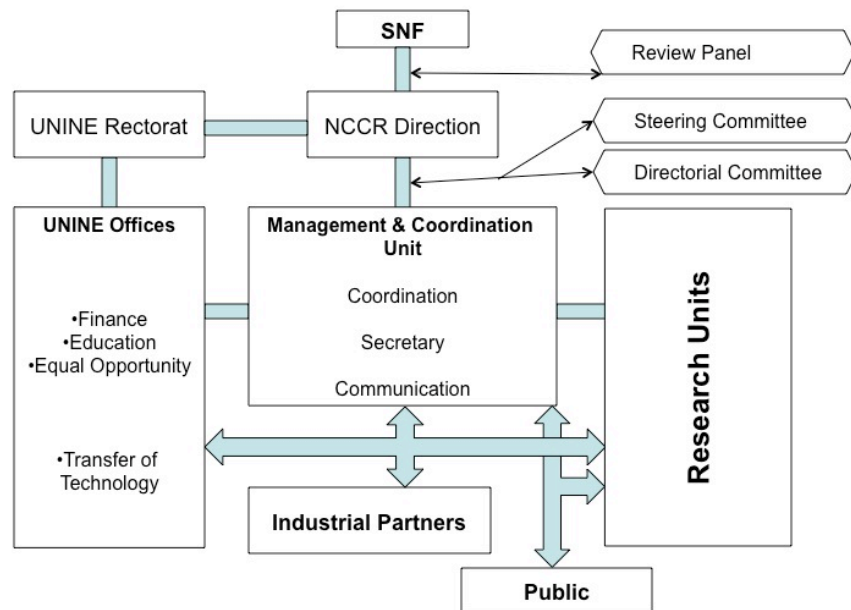
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The Coordinator also acts as independent ombudsman/ombudswoman in case of conflicts within the Management and Coordination office.

§ 3 Organisation of the NCCR

§ 3.1 Structure of the NCCR

The structure of the NCCR is shown with an organisation chart (see below).



§ 3.2 Description of the functioning of bodies and assemblies

§ 3.2.1. NCCR Director

The NCCR director has the overall financial, scientific and organisational responsibility for the NCCR and will initiate appropriate measures to ensure its functioning and to reach its objectives. All his duties will be performed in accordance with article 4 of the NCCR contract.

In case of a long-term inability of the director to execute his directorial duties, the 1st Vice-Director will fill the position of the director. In case of a long-term inability to execute his duties the director's function will be undertaken by one of the 2nd Vice-Directors.

The director represents the participants in all transactions with the University of Neuchâtel and with the SNSF.

§ 3.2.2 NCCR directorial committee

All vice-directors are appointed by the NCCR director. There must be one each from the Universities of Bern, Neuchâtel and Fribourg. All the vice-directors are appointed for a term of 4 years. After consultation and with the consent of the SNSF the director can request the premature resignation of a vice-director.

The committee decides on all educational matters and recommends decisions on scientific matters to the director. Decisions taken must not be in conflict with the decision competence of the director as stated in the NCCR contract.

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The committee meets after invitation by the director. Two members of the committee can request a meeting. The committee meets as often as necessary, but at least twice a year. The invitation is sent out at least 10 days before the meeting and contains the agenda of the meeting. Each member can request to set an item on the agenda.

The committee can only decide on items that are on the agenda. In urgent and unforeseen cases the committee can also decide on items not on the agenda, if all members agree to do so.

The committee can decide on items on the agenda if at least three of its members are present. Decisions are taken by simple majority voting. In case of a parity of votes the vote of the director is decisive. Temporary members are allowed to vote if they have been accepted as temporary members beforehand.

The committee will organise the yearly NCCR conference.

The committee will appoint an international advisory board including at least 3 scientific experts. The advisory board will also include partners and users.

The committee can initiate theme-oriented workgroups with themes that are relevant for the success of the NCCR.

The director can ask the members to keep strict confidentiality on items of the agenda.

§ 3.2.3 Sub-projects

Sub-project Leaders (SPL) are responsible for organizing discussion and scientific progress within their individual project in the spirit of good collaboration and cooperation.

Within the limit of their own institutional regulations Sub-project Leaders are entitled to sign every contracts, including non-disclosure agreement, related to their Sub-projects with third parties that are not members of the NCCR. According to art. 4.4.3, those contracts have to be countersigned by the director acting as such, in order to make the information full and clear within the NCCR.

SPLs are responsible for the measures necessary to reach their postulated goals and milestones (see also article 5 of the NCCR contract).

They are responsible for timely delivery of yearly progress reports for their projects. The director can request changes in both the composition of members of the individual research project and in its scientific objectives, the procedure being outlined in the NCCR contract article 4.

As outlined in the NCCR contract article 4, the director can terminate a Sub-project.

As outlined in the NCCR contract article 4, the director can initiate new Sub-projects.

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§ 3.2.4 Scientific coordination committee

The scientific coordination committee meets to intensify coordination and integrate research among individual projects, participants and partners. It can recommend areas of research, which should be strengthened or developed within the NCCR. It will also pay specific attention to the transfer of knowledge and technology by identifying project parts suitable for transfer and initiating contact to potential partners and users.

The director (or another member of the directorial committee) issues invitations to the assembly meetings, which are held at least three times per year. Guests and partners are invited by the director.

Recommendations to the directorial committee are given by a majority vote and can be accompanied by minority statements.

§ 3.2.5 Assembly of NCCR participants

The Assembly of NCCR participants exists to facilitate exchange of ideas among researchers, thereby promoting the networking spirit of the whole project. The preferred form of the assembly will be that of an extended seminar and discussion meeting. The attendance of all NCCR researchers will be strongly encouraged.

The coordinator organises the meetings and issues invitations to them. They take place at least 6 times per year.

A minimum of five NCCR participants or NCCR partners can request the scientific coordination assembly to discuss a specific issue.

§ 3.2.6 General assembly

The general assembly is held in the context of the yearly NCCR conference. It is an informative assembly. The director presents a report on the progress of the NCCR to the general assembly and allows all participating persons to bring matters concerning the NCCR to the attention of the audience. Partners and users will be especially encouraged to voice their perspectives on the progress of the project.

§ 3.2.7 Management and Coordination office

The management and coordination unit reports directly to the director and assists him in all his duties with respect to the NCCR. Responsibilities and competencies of the members of the unit are described in individual position descriptions. The task of the ombudsman/ombudswoman is to investigate complaints about possible injustices suffered by any member of the NCCR due to the action (or inaction) of any organ of the NCCR and which has not been put right. The ombudsman/ombudswoman acts independently of any other member of the NCCR and all members are obliged to supply information requested by the ombudsman/ombudswoman during the course of his/her investigation. The ombudsman/ombudswoman reports the results of the investigation to the directorial committee. The ombudsman/ombudswoman cannot help when a complaint is a simple disagreement with a decision taken by a body of the NCCR during the course of its stated duties.

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§ 4 Processes within the NCCR

§ 4.1 Changes in the NCCR regulations

The following changes take place via consultation of the directorial committee and decision of the director (respecting article 4 of the NCCR contract):

- creation, termination and constitution of consulting bodies and assemblies
- changes in the composition or functioning of consulting bodies and assemblies
- changes in the rights and duties of consulting bodies and assemblies

§ 4.2 Quality assurance

The scientific quality of the NCCR will be assessed by the following means:

- an international advisory committee will be constituted by the directorial committee. Its members (at least 3) will attend the yearly meeting of the NCCR and report to the director and the directorial committee.
- yearly reporting system to the SNSF: individual reports, prepared by each SPL, are submitted to the directorial committee, and after approval by this committee, the director submits the report to the SNSF
- the continuous internal control of progress within the individual research project is part of the responsibility of the SPLs and will be ensured by regular within-project discussion meetings.
- discussions of the scientific progress in the assembly of participants and the scientific coordination committee, and the implementation of its recommendations
- regular visits by the coordinator to the different research sites

Controlling of progress in knowledge and technology transfer will be through the yearly reports. Individual participants are required to report on their contacts with partners and users to the director, who will compile the reports to a section within the yearly report.

Controlling of progress in education and training of individual students is done by the education office. Requirements and procedures are specified in the guidelines for graduate education.

§ 4.3 Finances

Budgeting and control of the budget is the duty of the director. The finance officer will provide reports on the budget every two month.

The director will decide on the use of the reserve funds, the transfer of resources between individual projects and the transfer of resources between categories within individual projects in accordance with relevant articles of the NCCR contract.

Accounting for the NCCR will be centralised in Neuchâtel. SPLs send all bills concerning consumables and equipment to the project secretary. Employment costs will be covered by regular payments from the finance officer to the employing institution after having received an invoice. Details are subject to negotiations between the financial officer and individual institutions.

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§ 4.4 Knowledge and technology transfer

§ 4.4.1 General regulations

The committee takes care that partners and users are invited to the general assembly, the assembly of participants and the scientific coordination committee. To aid discussion input from users the status of an "observer" can be established, with the goal to have them at the general assembly voicing their specific needs. The maintenance of contacts to individual partners and users will be delegated to individual participants of the project. Participants from Federal Research Stations have a special responsibility to maintain and seek contacts with interested users. Thereby direct input from partners is ensured on the level of the individual (sub)-project and themes and inputs from partners will be transmitted via the participants on the established communication routes to the whole project.

§ 4.4.2 Legal competencies and responsibilities (according to article 22 of the NCCR contract)

The home institution is the owner of all intellectual property (IP) rights, software rights, and research results obtained by employees of the University of Neuchâtel within the NCCR, with the exception of copyrights.

The home institution is responsible for undertaking the necessary steps to enhance added value (= valorisation) and for the exploitation of the IP rights and research results. The employees and Sub-project Leaders (SPLs) have the obligation to inform the home institution on items of special interest for transfer of knowledge and technology. If the home institution does not initiate the "valorisation" within the following two years, employees can recover the rights on the results. In case of a successful exploitation of the IP rights and research results, and after deduction of the costs associated with the protection and the "valorisation", the benefits will be shared between the host institution and the NCCR members involved in the project. The shares of the benefits will correspond to the proportion of funds provided by the SNSF, the University and third parties to each NCCR project. The relevant reference will be reported in the annual report in the year of the generation of results.

The Sub-project Leaders who are not employed by the University of Neuchâtel are responsible to take the necessary steps to exploit the IP rights and research results obtained within their projects, according to the regulation of their respective institution. In doing so, they may call on the assistance of their institution's or the home institution's technology transfer office.

In case of a successful exploitation of the IP rights and research results, the benefits should be split according to the model provided by the home institution (see above).

In application of the aforesaid principles, the director will arbitrate and settle every disputes arising between NCCR members about the generated innovation and its exploitation.

§ 4.4.3 Contracts with third parties (according to article 23 of the NCCR contract)

The participants agree that all contracts related to the NCCR (e.g. non-disclosure agreement, research or intellectual property transfer or valorisation agreements) with third parties shall be in accordance with the rights and obligations of the statute of the NCCR *Plant Survival*, the contract with SNSF, and the regulations of their home institution.

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The participants agree to submit each research contract or technology transfer or IP rights contracts with third parties to the NCCR director for approval. The director will countersign the submitted contract unless it is not in accordance with the NCCR regulations or with existing contracts with other third parties (that is to avoid participants granting identical or overlapping exclusive access rights to different third parties).

The institutions involved in the NCCR according to article 10.1 of the contract with SNSF have a right of first refusal, according to article 23.2 of the contract with the SNSF, on the results obtained within the project(s) they are supporting which is (are) totally or mainly funded by SNSF, in case of their exploitation / valorisation with or by third parties. The right of first refusal shall be exerted under the same conditions as foreseen for contracts with third parties. In no case, will a technology transfer or exploitation/valorisation of IP rights take place for free. If an institution exercises its right of first refusal, the amount of the counter-prestation owed by this institution will, according to article 23.2 of the contract with the SNSF, have to take consideration of its contribution to the results obtained under the NCCR and to the NCCR itself.

In case of conflict of interests between two or more participants/institutions with respect to the exploitation of results obtained within the NCCR, the director will arbitrate and settle any dispute.

In case of commercial exploitation of IP rights, research results or software rights after the right of first refusal was exercised, the home institution should receive a share of the benefits. The benefits will be attributed according to art. 4.4.2 above.

§ 4.4.4 Intellectual property and technology transfer / Mutual access to results and/or to background technology

Within the limits of the home institution regulations of each employee, each home institution is the owner of the results generated by its employees within the framework of the NCCR (foreground rights). Each home institution is entitled to file patent applications on the results, at its own costs and under its own name, or to protect its foreground rights by any other relevant intellectual property title application. Within the limits of article 4.4.3 above, each home institution is free to commercially exploit its foreground rights.

Each home institution shall take all steps and measures to obtain sufficient access rights to IPR generated by its employees and/or students. Each home institution shall be solely responsible for the retribution of their inventors, authors and developers who created foreground rights and shall hold the other participants free and harmless against any claims of such inventors, authors and developers.

Same rights and obligations do apply to Sub-project Leaders or participants to the NCCR who employees researchers involved in NCCR projects, under contracts submitted to private law (Swiss obligation code) which should be adapted to reflect these rights and obligations.

Results obtained in common by two or more members of the NCCR shall be jointly owned by said members. The proportion of ownership relates to the amount of funds

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contributed by the NCCR, the home institution and third parties to each of the partners as stated in the annual report.

Each participant agrees to give to other member(s) all reasonable assistance for obtaining patent protection, and for preparing and prosecuting any patent application filed by another member on joint results, and will cause all appropriate assignments and other instruments or documents to be executed.

The members shall use their best efforts to agree on a case by case basis with respect to patent applications and/or patents covering joint results in particular on the ownership ratio of the involved members as defined here over, a possible transfer of results, the industrial exploitation of them, either by other members or by third parties, and the conditions thereof, the allocation of internal and/or external expenses as well as on the accounting mode of said costs.

The director will arbitrate and settle any dispute arising among members/participants in relation with joint results.

Each patent application, covering individual or joint results, as the case may be, shall be filed by the member(s) owner of the rights, without the possibility for a non filing member to raise an objection regarding the patent filing. If there are written evidences, that the patent application interferes with patent protection seeking activities of other members and/or commercial exploitation of their own results, the director will arbitrate and settle the different, in order to avoid conflict of interests. The director will initiate a discussion in order to determine acceptable modifications to resolve the issue and allow filing without conflict of interests. Those modifications should be adopted within 20 working days after the date a dispute arisen. In case where no mutually acceptable agreement can be achieved between the participants/members, the director will decide to the best of his knowledge and judgement.

Each member agrees to licence to other NCCR members free of charge its background and foreground (obtained within the framework of the NCCR) rights for research purposes only (in-house research), as far as this is necessary to carry out research projects within the NCCR and as far as the member is free to do so. However, licensing of background rights for internal research purposes is not compulsory, in particularly in case of commitments of the member(s) which may limit and/or prevent the right to use the background technology by other members for research purposes and which pre-exist to the 1st of April 2001. The background technology shall remain the property of the participant having generated it.

The license granted for in-house research is a non-exclusive and royalty free, and does not imply the right to grant sublicenses to third parties.

The in-house license granted on background and foreground rights should remain in full force and effect even if the member(s) which is/are owner(s) of such rights leave(s) the NCCR.

In case a member needs the access right to background technology of another member(s) to permit commercial exploitation of own results obtained within the framework of the NCCR, prior written approval of the owner of the background technology is required. Such approval shall be subject to the payment of

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compensation to said owner and subject to the owner being free to grant such rights. If those conditions are fulfilled, then may the approval not be denied. For the avoidance of doubt, a member who is not owner of background rights is not entitled to commercially exploit nor grant rights of exploitation on any background rights without the prior written consent of the owner of such background rights.

The member(s) agrees that commercial access right granted to third parties shall whenever possible and commercially sensible be non exclusive or else in a narrowly defined field of use to enable efficient technology transfer to different third parties.

Article 4.4.4 shall remain effective for 30 months after termination of the projects taking place within the framework of the NCCR.

§ 4.4.5 Confidentiality

All participants agree to keep the necessary confidentiality to achieve the objectives of the NCCR in particular with respect to results linked to possible "valorisation" and transfer of technology. No sensible information will be transmitted to third parties before signing a non-disclosure agreement according to the scheme provided by the home institution.

SPLs must report to the director 30 working days in advance about the publication of results of research done in the context of the NCCR and leading to a possible exploitation. If necessary the director can stop premature publication and ask for an amendment, allowing the "valorisation" to take place. The director or his deputy has to react within 10 working days after the paper having been submitted to him. Failure to respond within 10 working days is considered as an approval. If a modification is considered necessary by the director, a discussion must be organised to determine acceptable modifications that will allow submission of the paper within 20 working days after the date of the director's objection. However, publications may be postponed by a maximum of three months after receipt of the manuscript in order to apply for possible protection.

Article 4.4.5 shall remain effective for one year after the termination of the projects taking place within the framework of the NCCR.

§ 4.5 Equal opportunity (EO)

For the Phase III of the NCCR the organisation of the EO activities will be taken over by the Equal opportunity Office (EO) of the University of Neuchâtel in collaboration with the NCCR Management and Coordination Unit.

Special attention will be given to implement equal opportunity measures as outlined in the full proposal of the NCCR.

§ 5 Duration

All persons involved in the NCCR agree to this document. The Sub-project Leaders inform their co-workers and employees about the content of the regulations and are responsible that they are respected. These regulations are valid for a period of 4 years, starting on April 1st 2009.

§ 6 Place of jurisdiction

Any dispute arising out of the NCCR *Plant Survival* or taking place within the framework of the NCCR and not being settled amicably, or decided by the director,

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shall be construed according to and governed by the laws of Switzerland. The single place of jurisdiction is Neuchâtel.