

# **Evaluation of the Swiss Cancer League and of the Swiss Cancer Research Foundation**

## **Overall Report**

**2012/2013**

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**Project Leader: Prof. Hans Weder**

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## 1. Executive Summary<sup>1</sup>

### 1.1. Contract and Method

The Swiss Cancer League (SCL) and the Swiss Cancer Research foundation (SCR) have commissioned evaluateSCIENCE to carry out the present evaluation of their research funding activities. The chosen method was the so-called Informed Peer Review, which corresponds to international standards and which is brought into line with the “Zurich Model” (self-evaluation report, indicators, Peer report, and overall report).

### 1.2. Peers and Reviewed Period

The group of six Peers included scientists of high international reputation, two of them working in Switzerland, two of them coming from European scientific institutions, two of them familiar with cancer research funding. They fully covered the fields treated in SCL/SCR activities. The period to be reviewed was roughly the years 2000 to 2012. The last evaluation that has been performed goes back to the late nineties (1997).

### 1.3. Evaluation Criteria

The criteria which had been agreed upon with the evaluation committee (Begleitgruppe) covered all relevant areas of operating and organizing SCL and SCR with regard to research funding and governance. Two additional surveys were carried out: The Grant applicant Survey to know more about the feedback by the applicants, the Bibliometric Analysis (including a sample of non-funded projects) to estimate the outcome and impact of funded projects and to get a glimpse on eventually missed opportunities.

### 1.4. Results of the Evaluation

The interviews were marked by openness, honesty and transparency; the Peers ascribe the SCL/SCR an important function for cancer research in Switzerland. They are particularly impressed by the work of the assessment procedure of the Scientific Committee (WiKo).

#### 1.4.1. Strategic issues

A concise strategy and a mission statement are lacking (traced back to the fragmented landscape) and, as a consequence, a clear perceived profile is absent. Supporting top quality is vital for the future; the 40-40-20 rule ought to be reconsidered. The Peers give particular recommendations to improve or modify the strategic concept of SCL/SCR.

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<sup>1</sup> This document has been produced by a non-native speaker

## 1.4.2. Research Support

The Scientific Committee (WiKo), decisive for a sound allocation of funds, works very well; supporting high quality research must remain highest priority. The outcome, measured by a bibliometric analysis consisting of three independent analysis approaches, is very good, for some aspects even excellent. One part of the analysis compared the research output to similar cancer support organizations in Europe, with very favorable results for SCL/SCR (the value of bibliometry is questioned by the Peer group with general arguments).

While the Peer group was very positive with regard to research funding in general, they nevertheless added some detailed comments and recommendations. Predominant is the notion that the organization is too fragmented and difficult to understand (which is thought to have a negative influence to the scientific community).

## 1.4.3. Resources

A clearer and simpler shape of the funding bodies and a more proactive governance could help in increasing donations all over Switzerland. A communication plan towards the public ought to be set up. The steadily deterioration success rate of applications has to be kept in mind. The applicants show a rather high grade of satisfaction with the WiKo and Scientific Office (SO) activities.

## 1.4.4. Governance and Structures

A clear policy has not yet been developed.

The allocation of funds is regulated with sufficient precision.

The structures concerning the relation between SCL and SCR are complicated and to a certain extent unclear. The interaction with the cantonal leagues is not optimal. The governance could be redesigned, simplified and possibly needs a leader.

The tasks of the WiKo are clearly defined.

The cooperation between WiKo and SO works well; the administration costs are kept very low indeed. The responsibilities of the SO in relation to SCL seem a bit complicated.

With regard to the relationship between SCL and the cantonal leagues the cooperation ought to be redesigned and improved (e.g. multiplication of assessments).

## 1.4.5. Quality Assurance

The procedure for assessing applications is most carefully defined (it implies, however, too big a workload for the WiKo). Applications are assessed according to clearly defined and appropriate criteria. The present evaluation and surveys document the will of SCL/SCR to stress the importance of quality assurance.

## 2. Framework and Features of the Evaluation

### 2.1. Methodological Aspects

The SCL and SCR have commissioned evaluateSCIENCE to carry out the evaluation of their research funding activities and their governance and structures. From the part of SCL/SCR the process was accompanied by an evaluation committee (Begleitgruppe) including the following persons:

- Kathrin Kramis, Director of Swiss Cancer League (SCL)
- Jakob Passweg, President of SCL
- Thomas Cerny, President of Swiss Cancer Research foundation (SCR)
- Martin Fey, President of the Scientific Committee (WiKo)
- Mathias Egger, member of the SCR Board of Trustees.

Stéphanie Buvelot Frei and Rolf Marti (Scientific Office of SCL/SCR) acted as leading contact persons for evaluateSCIENCE. From the part of evaluateSCIENCE Hans Weder, head of the Division University Governance and Audits, was responsible for managing the process; the additional surveys were carried out by Dominik Steiger.

The chosen method was the Informed Peer Review, which had been brought into line with the Zurich Model (a model of evaluation that has been developed by the University of Zurich UZH and that is being applied for all evaluations at the University of Zurich, carried out by the local Evaluation Office) and which had been optimized for and focused on the particular needs of SCL/SCR evaluation.

The procedure included the following steps: Preparation of the evaluation process with the Scientific Office, kick-off meeting with the Begleitgruppe (discussion of evaluation criteria and of possible peers) – decision about Peers (by evaluateSCIENCE) – self-evaluation report integrating quantitative indicators – two surveys by evaluateSCIENCE (a bibliometric analysis consisting of three parts, and a survey directed to grant applicants of recent years) – site-visit with briefing, interviews and debriefing – Peers' report – comments by the Scientific Office concerning errors and figures – overall report – comments by SCL/SCR – handing over of the overall report to the Begleitgruppe, who are responsible for the follow-up process. The process was started in June 2012, and was completed in August 2013 by handing in the overall report to the Begleitgruppe.

All persons involved have participated in the project in a cooperative and appropriate way. No bad feelings or critiques were to be noticed from any side. The self-evaluation report by the Scientific Office of SCL/SCR is of good quality and is honest.

## 2.2. Peers

The group of six Peers included scientists of high international reputation. They fully covered the different activities of SCL/SCR (cancer research in Europe and in Switzerland, basic research and translational research, funding agencies from abroad). The group was set up by evaluateSCIENCE in cooperation with the Begleitgruppe and the Scientific Office of SCL/SCR. The group included the following members (in alphabetical order):

- Professor Stanley B. Kaye, Head of the Drug Development Unit and Head of the Section of Medicine at The Royal Marsden Hospital and The Institute of Cancer Research
- Professor Denis Lacombe, Director Headquarters, European Organization for Research and Treatment of Cancer (EORTC)
- Professor Denis Monard, former president of SCNAT and of FMI
- Professor Jürg Schifferli, Department of Biomedicine University Hospital Basel
- Professor Emile Voest, member of the board of the Dutch Cancer Society
- Professor Otmar D. Wiestler, member of the board of the Deutsche Krebshilfe

The Peers fulfilled their tasks in a very professional way so that all stakeholders were happy with their results. The expertise and experience of the Peers was quite impressive (eS). The Peer report renders the unanimous opinion of the whole group (P2). No disagreement in the assessment has to be mentioned.

## 2.3. Evaluation Criteria

The group was requested to cover all test areas included in the adjusted procedure of evaluateSCIENCE. These have been coordinated with the Begleitgruppe and include the following dimensions:

- Procedure of allocating research funds
- strategic leadership
- operative management
- quality of the funded projects
- quality of some projects that were not funded (“missed opportunities”)
- coordination of the funding activities by cantonal and federal bodies
- handling of commercial potential
- handling of intellectual property rights

The Begleitgruppe were particularly interested in the outcome of projects that had not been funded by SCL/SCR. They wished the projects to be differentiated according to the categories “rejected”, “approved but not funded (ABNF)” and “funded”. They further wished that a difference was made between basic research, clinical research,

epidemiology and psychosocial research. Bibliometric evidence related to the applicant was seen as possible indicator for quality, the assessment of the innovative substance was thought to be based on publications in High Tier Journals. According to the Begleitgruppe evidence for the scientific quality of projects funded by cantonal leagues would be of high interest, but the assessment of these projects is not part of the present evaluation procedure.

Two separate analyses were carried out by evaluateSCIENCE (Dominik Steiger).

- A bibliometric analysis of SCL/SCR research output, consisting of three independent analysis approaches: a) an analysis of all funded research projects for the period of 1998-2006, b) a comparative analysis of funded, approved-but-not-funded (ABNF) and rejected applications based on follow-up on a blind-chosen sample of around 30 projects, and c) a comparative analysis based on Web of Science data, comparing SCL/SCR research output to European benchmarking organizations.
- A survey addressed to 457 grant applicants of the last 5 years, polling their experiences, their assessment of the funding procedures, their opinions and suggestions regarding cancer research support by SCL/SCR and related topics.

## 2.4. Remarks concerning some properties of this report

In the following report all relevant test areas are dealt with in a condensed and summarized manner. This overall report presupposes the self-evaluation report of the SCL/SCR Scientific Office and the Peers' report and summarizes all relevant aspects. If more details are of interest, the reports presupposed may be consulted. The particular statements in the overall report are accompanied by a reference to their sources in brackets; the same is true for assessing statements: S stands for the self-evaluation report by SCL/SCR, P for the Peers' report, and eS for evaluateSCIENCE. The references can include page numbers. In order to make the report well readable, only few explicit quotations are inserted and indicated as such. Together with this report, the comments by SCL/SCR regarding content and recommendations are handed in to the Begleitgruppe.

## 3. Evaluation Results

As **general remarks** the Peers want first to stress the openness, the honesty and transparency, which characterized all the interactions and interviews (P1). The same can be underlined with regard to the interactions with evaluateSCIENCE and to the self-evaluation report.

Secondly, the peers realize that the Swiss Cancer League and Swiss Cancer Research foundation serve an **important function as funding agencies for cancer research in Switzerland**. They were particularly impressed with the working of the Scientific Committee, whose evaluation processes appear sound and well established (P1).

### 3.1. Strategic Issues

With regard to strategy the **lack of a strategy or mission statement** (except the commitment to support high quality research) has to be noted as a remarkable deficiency. This is true for either body, the SCR and the SCL (P1 and P5). According to the self-evaluation report this seems to be wanted by both of them, since there seems to be an explicit strategy only with regard to “research promotion”: To be supported is mainly research that is a) independent project research, b) independent from industry, and c) cancer relevant. A general emphasis lays on research that will have an impact on patients (S9).

This **strategic deficiency** is by the Peer group traced back to the fragmented landscape of cancer research support in Switzerland, where both SCL/SCR and a number of cantonal leagues pursue their own objectives without an appreciable coordination. The fragmentation is hindering the necessary coherent strategic planning and preventing from realizing subsequent improvements (P1). „The peers perceived a rather fragmented landscape leading to a frozen situation hindering mechanisms aiming at defining a strategy and subsequent improvements. Consideration should be given to developing mission statements, which are presently lacking, the exception being the priority already given to high quality research. The peers see no real leadership at present. The governance could be reshaped, simplified, and possibly needs a real leader, who is responsible for thinking and developing strategies – ideally with a supportive board.” (P1)

The **absence of a perceived profile** is underlined by the evident difficulty of all persons involved to name some highlights of the activities of the past years (P5). The same is documented by the closing of the support for cooperative research and in particular for translational efforts. Those funding activities have been closed down without a visible reason or being based on a careful analysis. “Rather it seemed that the difficulty in interacting with international clinical research programs has led to the decision to close this program.” (P4). The Scientific Office points out, however, that the translational program was closed due to the lack of evident translational effects (the Peers question the definition of translational, see the third paragraph below); the SO mentions as well the



bibliometric analysis showing that those projects were less successful than independent ones (when normalized to resources invested). The SO finally points out, that the cooperative program (ICP) was replaced by the performance contracts program, not stopped (comments included by eS).

According to the Peers, the SCL organization presently functions in such a way that all incoming projects are welcome. There seems to be no attempt to define, given the means and resources available, what could be the best added value of SCL and SCR (P4).

With regard to **defining a future strategy** the Peers agree that supporting top quality research has to remain the highest priority (P2). The recently established **40-40-20 rule** (splitting of the allocated funds in basic, clinical and psychosocial fields, respectively) was much debated, both in the interviews and in the Peer group.

„Most of the interviewed persons considered these rules of allocation to be problematic. Firstly the same criteria of excellence cannot be applied. Any compromise on quality should not take place. Secondly, many excellent proposals attributed to the basic research slot cannot be funded even though the output of other applications in the remaining fields remained meager. Furthermore, the upper limit of support in the range of 250 000 CHF does not allow high quality applications from clinicians. For the peers, most of the projects classified as basic research are in fact translational. The criterion of using human tissue is not satisfactory as validation in animal models can make an important contribution to therapeutic applications.“

The Peers recommend thinking about other strategic decisions that could be taken in the context of defining a new mission statement. To give an example, 70 % of the funds could be allocated for supporting investigator-driven research (which is very much appreciated by the members of the WiKo) proposals exclusively on the basis of excellence and 30% of the remaining funds could be allocated to strategic topics defined by the (new) organization (e.g. participating in international clinical trials, supporting of young investigators or other activities in neglected fields considered as important original niches).

The Peers recommend, that the 40-40-20 rule is evaluated to find out, whether it still is adequate, and that alternative measures are considered. “While limiting the basic research applications, the process evidently does not stimulate the clinical research.” The peers did not notice evidence of a prospective strategy to address these important issues, which could maximize the use of the available resources (P4).

The **bottom line of critical comments concerning the strategy** – appearing as well in many detailed comments – as a whole is a certain lack both of clear strategic aims and of acting in a more proactive manner. This general observation would be worthwhile rethinking in the context of a SWOT analysis by the Begleitgruppe and by the boards of SCL and SCR (eS).

As a **particular strategic decision** the Peers agree with the researchers in recommending that more weight ought to be laid on the promotion of young clinician scientists in order to improve clinical science which is not very strong in Switzerland.

The general recommendations of the Peers concerning strategy are the following (P6):

- Develop a strategy and mission statement in conjunction with SCL. This will help to better allocate the funding.
- Based on this strategy initiate projects that may amplify the grant money through other sources, e.g. via the Leagues.
- Think about extending the duration of projects from 3 to 4 years or even longer depending on the background of the project (e.g. epidemiology).

### 3.2. Research Support

The **Scientific Committee** is a key body for an optimal allocation of funds for research. According to the Peers the WiKo is working well, setting, especially in the so-called basic research field, the highest possible standards to maintain excellence as the over-riding criterion for selection. The peers strongly endorse the view that the aim of supporting **top quality research** has to remain the highest priority (P2). The evaluation process, which involves two members of the committee and 3-6 external peers, appears sound and well established. Categories can be selected by the applicants and are usually assigned by the head office (the SO points out that this is not correct: Applicants can select a category, but the final decision is made by the WiKo, not by the SO, correction included by eS). Final scores are adjusted based on the discussion within the WiKo. The members are aware of the fact that many basic research projects also address translational issues. Purely basic research (to be more precise: without cancer relevance, comment of the SO included by eS) is usually submitted to the Swiss National Science Foundation (SNF) (P6).

**Investigator-driven research** is much appreciated by the members of WiKo. They are skeptic against channeling the applications by strategic programs; they are as well skeptic against defining quotas (P7).

The outcome of funded research projects serves as an important indicator for assessing the quality of research funding (eS). To measure the outcome precisely may be difficult, but one internationally established criterion is given by bibliometric data. That was the reason for evaluateSCIENCE to carry out a **bibliometric survey** of the publications being produced in context with funded projects (see the extra document Bibliometric Analysis KLS/KFS). Although such an analysis is accompanied by various uncertainties (see the respective disclaimers in the document mentioned), it still shows to a certain extent whether SCL/SCR are performing their support on a successful path.

The survey shows with sufficient clarity that SCL/SCR funds high quality research, resulting in publications within journals with an Impact Factor (IF) of higher than 5 for the domains Basic Research, Epidemiological Research and Clinical Lab-oriented research.

This is underlined by the fact that a considerable fraction of papers is published in top journals. The results of this part of the bibliometric analysis are consistent with the findings of the 1997 evaluation report.

Of particular interest was the outcome of non-funded projects (i.e., approved but not funded (ABNF), and rejected) in comparison with the funded ones. A survey based on a blind chosen sample showed as a main result, that within the blind-chosen sample, funded basic research and epidemiological/clinical lab-oriented research projects showed far greater success than the rejected projects. ABNF basic research grants showed only slightly smaller success than the funded basic research projects. These results clearly demonstrate sound approval decisions by the Scientific Committee.

To compare the outcome of funded projects with that of projects funded by comparable institutions in other countries may serve as a further interesting indicator for the quality of the committee's funding research. Therefore the bibliometric analysis produced by evaluateSCIENCE compares a number of peer institutions all over Europe (see additional document). The comparison shows on the one hand, that the production of papers related to SCL/SCR/Oncosuisse is relatively small (less than 1000 papers, compared with more than 5000 papers of Cancer UK), on the other hand, however, it shows that the Swiss institution performs extremely well: Papers produced in this context show the highest number of citations per paper of all peer institutions. Citations per paper are a sound measure for quality, since it measures the impact of a particular publication on the scientific community (in contrast to impact factors measuring the impact of a given journal as a whole). Relating citations per paper or the h-index to the money invested shows similar positive results. This proves a very remarkable efficiency of the funding done by the Scientific Committee (eS).

The mentioned bibliometric analysis was **presented to the Peer group**. The group think bibliometric analyses not to be useful for measuring the quality of the research funded, with one exception: It correctly points out the failures in the psychosocial field (P2). Although bibliometry always needs interpretation and therefore has to be handled with care, it is indeed able to reveal strengths and weaknesses of scientific production to a considerable extent (in particular in the field of medical or biomedical research). In many respects it is international standard, applying sophisticated methods which deliver rather sound and robust results (which themselves again have to undergo careful interpretation, of course). With regard to international standards the skeptic judgment by the Peer group must be relativized (eS).

In the course of the surveys performed in the bibliometric analysis a number of interesting clues and observations came up which might be worthwhile to be thought over in the follow up process; they concern in most cases the work of the Scientific Committee (eS):

- ABNF "rejections" seem to be hard to swallow for the applicants
- SCL/SCR might consider to regularly poll applicants with not funded or rejected projects about the fate of the projects, as a measure of quality control.

- Underreporting (leading to less visibility of the outcome) may be minimized by appropriate incentives and a tougher reporting control. Researchers are asked to report papers also after handing in the final project report, but may partially fail to do so. An automatic email sending system, asking researchers periodically to report, might be desirable (the underreporting is noted as a weakness in the self-evaluation report).
- Review publications should be marked in the database.

While the **Peer group was very positive with regard to set up and the procedures of the research funding in general** and while the group assessed the work of the WiKo as sound and appropriate, there were nevertheless a number of comments and observations which name certain disadvantages or deficiencies in this field.

- The Peers feel the complex structure causing some difficulties for the applicants. While some stakeholders did not express their unease with the complexity other stakeholders mentioned different experiences. In particular, the rationale for maintaining the 2 organizations was discussed, but the interviewees did not provide solid arguments for an improvement of the work by a leaner organization. The existence and the **variability of the cantonal leagues** add to the complexity of the Swiss landscape. It inevitably impacts on the applicants whose priority is simply to achieve optimal success of their grant proposals (P3).
- Regarding the quality of the research it can be said that the fragmentation, the lack of pro-activity makes it difficult for the panel to judge how far the organizations can provide novel incentives for further stimulation of the Swiss researchers (P4).
- The Peer group considers the communication to researchers and applicants to show room for improvement; this may be related to a certain lack of proactive strategy (P4f). The applicants' survey, however, shows that roughly 90% of the applicants are very satisfied with the information available for applications (eS, see additional document Grant Applicant Survey), and they are mostly fine with the grant application process, while showing lesser, but still overall neutral to positive satisfaction with the review process.
- The Peer group noticed a relatively high rate of non-publications or of delayed publications; this is probably in connection with a non proactive long term monitoring of the projects (P4).
- The Peer group agrees with the interviewed members of SCR management and board of trustees, that the fragmented funding and the unclear relationships between the various bodies involved in Switzerland as a weakness (P5).
- In could not be made clear for the Peers, how the connection with Oncosuisse (given by the former president) affects the choices within SCR und SCL research funding (P5).

- The Peers recommend, based on a clear funding strategy, initiating projects that may amplify the grant money through other sources, e.g. via the Leagues (P6).
- The Peers recommend to think about extending the duration of projects from 3 to 4 years (depending on the background of the project, e.g. epidemiology) (P6).
- Resubmissions happen quite often and add to the workload of the Scientific Committee. It would be advisable to think about not allowing immediate resubmission for rejected projects (P6).
- The Peers agree with interviewed members of the WiKo, that more attention ought to be paid to funding for physician scientists and scientists coming from abroad (P6).

### 3.3. Resources

Although the whole field of fundraising was not subject of the present evaluation, the Peers noted some observations and recommendations heading to an improvement of the fundraising procedure and efficiency.

Above all, a clearer and **simpler shape of the funding bodies** and **more proactive governance** could help in increasing donations all over Switzerland, since the image ascribed to SCL/SCR would become clearer and have a better visibility and profile (P1).

One promising measure would be to develop a **communication plan** to the public, “which explains that cancer research needs to pursue in collaborations and is not confined to local initiatives. This plan should also clearly state the impact that the organizations want to make on cancer and how they will approach this. This may help bring together the other funding organizations.” (P6).

“Some of the persons interviewed mentioned that a new organization, based on clear mission statements, could promote new innovative focus in communication. The peers consider that the organizations should grasp opportunities to educate the public on actual issues linked to cancer research, especially the fact that it cannot anymore be confined to local initiatives but requires collaborations at national and international levels” (P2).

A point to be kept in mind is the **steadily deteriorating success rate of applications** (from roughly 75% to now roughly 30% in basic research). This development may well keep future scientists from applying, even if they are very good in their field. Or it may shift the applications from the (essential) basic research to the (no less essential) clinical research (where the success rate has declined as well) and therefore disturb the intended balance between the two fields. It is not easy to solve this problem, of course, but it may be possible to reduce the number of applications by managing the calls (eS).

The rather high grade of general satisfaction documented by the Grant Applicant Survey (see additional document) of researchers with the funding, the information, the quality and fairness of the assessment procedure and other has to be taken into account. The research funding seems to a great extent appreciated by the applicants (it is less

appreciated, as one would have expected, by applicants whose projects were rejected or approved but not funded) (eS).

## 3.4. Governance and Structure

### 3.4.1. Policy Definition

The general policy of cancer research funding is defined by the Assembly of Delegates of the Swiss Cancer League. The procedure to develop a policy is reasonably ruled (eS, G1). Despite this structural prerequisite the Peer group comes to the conclusion, that the actual development of a coherent strategy has not sufficiently taken place until now (see above 3.1).

### 3.4.2. Allocation of Research Funds

The range of possible funding areas is clearly defined in art. 2 of the basic rules (see the document Cancer Research Promotion. Regulations, below quoted as "Regulations") (eS). The Peer group still made several comments and recommendations concerning a more focused and efficient funding practice (see above section 3.2, detailed remarks to the funding). It would be advisable to review the definition with regard to the basic decision, whether free investigator driven research or focused, policy-controlled research is to be funded in future. Possible combination of both practices could also be thought of as promising.

### 3.4.3. General structures concerning the relationship between SCL and SCR

The Board of SCL are responsible for the strategic leadership and supervision of SCR (they define the general policy of funding, elect the chair and the deputy chair of the WiKo, decide – on request of the WiKo – on projects, persons and workshops to be funded). The Board reports to the Assembly of Delegates of SCL. These functions are restricted to research projects funded by SCL (roughly 3 Mio CHF). (eS)

According to the self-evaluation report, SCR seems to have been given its own Board of Trustees, which works in the same way as the SCL Board of Trustees. This applies only to research projects funded by SCR (roughly 13 Mio CHF). The relationship between these two Boards of Trustees does not seem to be clearly defined. Neither is it obvious why research funding is divided into two bodies. (eS)

According to the Peer group the interactions with the cantonal leagues are not optimal (P1f). Regarding a unified and clear appearance the cooperation is not well organized. It is not clear, for instance, why the cantonal leagues do not make full use of the existing and proven - as evident also from this evaluation - framework for funding decisions on the national organizational level. There are too many rules, and not enough examples of networking between the cantonal leagues, respectively with SCR (P2).

In the interview with SCL the structure was described “as lean and efficient”, this despite the explanations describing the parallel structures of the SCL and Swiss Cancer Research foundation (SCR). The interaction is described as satisfactory. Other stakeholders do not necessarily echo this and the perception outside still appears confusing. The rationale for maintaining the 2 organizations was discussed, but the interviewees did not provide solid argument for an improvement of the work by a leaner organization.

It is appropriate that the Boards (being financially responsible for the allocation of the resources, which, to a great extent, are donated by the public) take the final decision on the funding of particular projects. One might wish, however, that the (quite necessary) asymmetry were explicitly stated in the rules: While it is possible that the Board refuses the funding of a project that has been given a high score in scientific quality, it is not possible that the Board funds a project that has been judged as of no great scientific value (eS).

The Peer group have noticed on several occasions the fragmented landscape, which the historical reasons are acknowledged for (P1), but which is disadvantageous in the opinion of the group. “The governance could be reshaped, simplified, and possibly needs a real leader, who is responsible for thinking/developing strategies – ideally with a supportive board” (P1). The Peer group felt some difficulties to understand the decision making in these two bodies. The rather complicated governance structure with two parent organizations is by the members of the WiKo recognized as problematic. However, it does not appear to have a negative impact on the work of the WiKo and the peer review process. (P7).

#### **3.4.4. Scientific Committee**

The tasks of the Scientific Committee are clearly defined in art. 5 of the Regulations (including the duty of an annual report to the Board of SCL; eS). Art. 4 defines the rules as to how members of the Scientific Committee are elected, making sure that all relevant cancer research fields are appropriately represented and that members cannot develop an unsuitable position of power (members are elected for a three-year period with the possibility of being re-elected twice; the chairperson, however, can be re-elected only once) (eS). According to the observations of Peer group participating in the WiKo is considered as prestigious, but at the same time it is difficult to find new members (which then leads to an unusually long membership of the WiKo, P5; the SO states, however, that the average staying time is 7.5 years, comment included by eS).



### 3.4.5. Cooperation between the Scientific Office and the Scientific Committee

The tasks of the Scientific Office (SO) are defined in art. 14 of the rules. The SO prepares the materials for the meetings of the WiKo, controls the execution of all decisions taken by the Board and the Scientific Committee (WiKo) and checks whether the funds are used according to the Board's decisions.

It has to be pointed out that administration costs are very low compared with the funds allocated in research: 2% only, which is an excellent ratio. These costs do not include expenditures for infrastructure, facilities and fundraising, which have not been analyzed in this evaluation.

The Scientific Office is (according to art. 14 paragraph 2) part of the office («Geschäftsstelle») of SCL. With respect to administration, it reports to the head of the SCL office on the one hand and is supervised by the chair of the Scientific Committee on the other hand. This way of defining two responsibilities does not seem quite adequate and might lead to complicated decision-making processes and possibly conflicts of loyalty, in particular with respect to the work load (which is presumably quite heavy in the area of research funding). We recommend that this structure is reconsidered and re-evaluated.

### 3.4.6. Cooperation between SCL/SCR and the Cantonal Leagues

According to the self-evaluation report, a considerable amount of money is spent by Cantonal Cancer Leagues for research funding, too. Although this need not be an issue in the context of the present evaluation, it might be appropriate to think about this multiplication of assessment bodies and division of forces. Focusing the funding power and concentrating the assessment processes might well strengthen cancer research in Switzerland in the future (eS).

In the opinion of the Peer group the existence and the **variability of the cantonal leagues add to the complexity** of the Swiss landscape. It inevitably impacts on the applicants, whose priority is simply to achieve optimal success of their grant proposals" (P3).

## 3.5. Quality Assurance

The **procedure of assessing the applications** for funding is defined most carefully (articles 7ff Regulations). Two members of the WiKo provide for an independent assessment; external reviewers (experts in a particular field) can be called in (they are mandatory for all projects, except for bursary projects). The voting corresponds to Swiss democratic principles and excludes decisions taken by a small number of members only. The rules concerning partiality and confidentiality are clear and effective (eS).

Due to the careful assessment of the applications the workload of the WiKo is considerably high. The Peer group recommends to reduce that workload by not allowing immediate resubmission for rejected projects (P6).



# evaluate SCIENCE

The **conditions and requirements for applicants**, the criteria underlying the assessments as well as the applicants' rights and duties are fully transparent (see art. 21ff).

Applications are assessed according to **clearly defined criteria** (listed in art. 17 and 18 of the Regulations). They are very carefully assessed (as it could be observed in a meeting of the WiKo) and given a score, differentiated by the various criteria. The discussion in the meeting is led by the chair and takes place according to rules that guarantee decisions of best possible objectivity (eS).

The **evaluation** as such, being initiated by the SO and approved by SCR and SCL, is an important measure of quality assurance. The same is true for the **surveys** (one of them bibliometric, one of them applicants-centered) that have been ordered by the SO. In addition, the self-evaluation report shows manifold instruments applied to maintain quality of all activities (monitoring the funding inputs, observing outcomes, precise description of vital procedures) (eS).

SCL/SCR might consider to regularly polling applicants with not funded or rejected projects about the future of the projects, as a measure of quality control (eS).

## 4. Table of Recommendations

The recommendations are listed here according to their occurrence in the text. In brackets they are marked as coming from the Peers (P) or from evaluateSCIENCE (eS).

- 4.1. Consideration should be given to developing missions statements (P).
- 4.2. The governance could be reshaped, simplified and needs a leader (P).
- 4.3. Supporting top quality research has to remain the highest strategic priority (P).
- 4.4. Other strategic decisions than the 40-40-20 rule (which should be evaluated with regard to its appropriateness) ought to be considered (P).
- 4.5. The critical comments on strategy would be worthwhile rethinking in the context of a SWOT analysis (by the Begleitgruppe and the Boards of SCL/SCR) (eS).
- 4.6. Initiating projects that may amplify the grant money coming from other sources (e.g. via the leagues) is recommended (P).
- 4.7. Think about extending the duration of projects from 3 to 4 years (P).
- 4.8. SCL/SCR might consider regularly polling applicants with not funded or rejected projects to find out the outcome of these projects (eS).
- 4.9. It would be advisable to develop appropriate incentives and a tougher reporting control in order to avoid underreporting and to increase the visibility of the funding agency (eS).
- 4.10. SCL/SCR might reassess the communication of ABNF decisions to grant applicants, as the ABNF decisions are not well understood and are met with strong critique by the applicants. SCL/SCR might consider communicating with a differing rating system to help applicants understand rejections (eS).
- 4.11. It would be advisable to think about not allowing immediate resubmission for rejected projects (P).
- 4.12. More attention ought to be paid to funding for physician scientists and scientists coming from abroad (P).

- 4.13. A clearer and simpler shape of funding bodies and a more proactive governance could help in increasing donations (P).
- 4.14. A communication plan towards the public ought to be developed.
- 4.15. To think about possibilities to reduce the number of applications would be advisable, in order to stop deteriorating the success rate (eS).
- 4.16. The alternative of investigator driven free research or focussed, policy-controlled research ought to be reconsidered. A certain combination of both practices could also be thought of as promising (P, eS).
- 4.17. One might wish that the asymmetric decision mode by the board would be explicitly regulated (eS).
- 4.18. The doubled structures of funding and supervising the SCR funding ought to be reconsidered and re-evaluated as to its appropriateness (eS).
- 4.19. The workload of the WiKo ought to be reduced (by not allowing immediate resubmissions of rejected projects) (P).
- 4.20. SCL/SCR should consider adopting a strategy and legal framework, e.g., Non Disclosure Agreements, regarding the sharing of confidential data with third parties (eS).

## 5. Appendices

(not included in the public version of this report)

Appendix 1:	Peer Evaluation Report
Appendix 2:	Bibliometric Analysis, evaluateSCIENCE
Appendix 3:	Grant Applicant Survey
Appendix 4:	Self Evaluation Report, SCL/SCR
Appendix 5:	Comments from Scientific Office to Peer Evaluation Report