# HOW TO ACHIEVE AND MAINTAIN NOTE 6: POSTGRADUATE PROGRAM IN TRANSLATIONAL SURGERY - UNIFESP

Como alcançar e manter nota 6: Programa de Pós-Graduação em Cirurgia Translacional da Unifesp

MIGUEL SABINO-NETO; LYDIA MASAKO FERREIRA

# ABSTRACT

**Objective**: To show the way to reach and stay in note 6 in the evaluation process of Medicine III of CAPES. **Methods**: Capes determinations were reviewed concerning this topic, grades 6 and 7, and also the difficulties and facilities of running a program that amounted to Note 6 after restructuring and being in compliance with regulations. **Results**: The main points to achieve and maintain Note 6 were: 1) regular production of master's and doctoral theses with appropriate distribution among all teachers; 2) average time of appropriate titration, as well as strict selection of students who resets the withdrawals and cancellations; 3) production of scientific articles in high impact journals and with academic and student participation in most part; 4) progressive and substantial increase in fundraising and patent search; 5) progressive increase in international exchanges with joint production; 6) visibility through new bilingual website and updated weekly; 7) numerous solidarity activities in research, but also in health services for the population and even in basic education; 8) rigorous selection of students (through design analysis, curriculum and teacher training program); 9) maintenance of high levels teachers production; 10) preparing new teachers for guidance through participation as co-supervision and involvement in the program to fit the needs. **Conclusion**: The Postgraduate Program in Translational Surgery went through difficult times; was submitted to a series of measures, adjustments, cooperation and understanding of the teaching staff, that took the program from note 3 - and almost closing - to a level of excellence keeping note 6 for three consecutive three-year periods of evaluation.

Key Words - Educational measurement. Quality control. Graduate education

# INTRODUCTION

## **Brief history**

The Postgaduate Program in Plastic Surgery at Unifesp was born together with the Postgraduate Program in Orthopaedics, in 1982. Until 1990 worked together when the break occurred. Plastic Surgery Program was formalized only in 1992.

At that moment all the Paulista Medical School (EPM) programs had the highest concept, considered so as excellent. With the evolution and changes implemented by Capes in 1996, shortly after being Plastic Surgery Discipline chair Prof. Dr. Lydia Masako Ferreira faced a serious situation: the Plastic Surgery Postgraduate program from EPM received the last concept in assessment: note 3.

Note 3 program was not seen as acceptable in the EPM size of the institution; so, on meeting with the Pro-Rector of Postgraduate recommended to close the program. It was an internal decision, which was rejected by the new program coordinator (Prof. Lydia was just sworn). So, was asked to Pro-Rector a deadline to implement necessary changes. The situation found was not simple, and the deadlines were too short to obtain many good results.

Thus, this article aims to show the way to reach and stay in note 6 in the evaluation process of Medicine III of Capes.

# **METHODS**

Capes determinations were reviewed concerning the subject, concepts 6 and 7<sup>1,2,3</sup>, and the difficulties and facilities of running a program that amounted to Note 6 after restructuring and compliance with regulations were analyzed.

# **RESULTS**

#### Grim diagnosis

It was not difficult to diagnose, in short time, the severity of the situation. In roughly the Prof. Lydia found: generic research lines and unfocused research; unproductive guiding; students with inadequate titration periods and inconsistent projects; and low production of scientific articles from projects. That is, many changes ahead.

She started immediately these changes in order to remedy such failures. Some might get faster results; others would require more time.

At this point it should be noted that two aspects were fundamental and that favored the changes: 1) humility coordination to seek opinions and suggestions in other programs; and 2) the survey implemented by Capes that being very energetic, can offer north and light at the end tunnel.

#### Implemented measures

Given the situation and the short time the following changes, were initiated: a) reformulation of the focus areas and lines of research; b) elimination of unproductive teachers/guiding; c) accreditation of new teachers and asking for external collaborators; d) rigor in the selection of students; e) implementation in publications with publication of theses already defended; defenses only by sending the article for publication; providing certificates of completion only after publication; targeting journals with impact factor (IF).

In the period 1995-97, six guiding were permanent teachers, two were from other Unifesp programs and one from Unicamp; the relationship student/guiding was just below 2:1. The scientific production from 1995 to 1997 was four books; 62 book chapters; 49 papers in refereed journals; 29 in non-indexed journals and 98 publications in annals.

Attentive to the new graduate's face in Brazil other measures were being taken to make these durable and consistent changes. Also in the moment: the postgraduate (stricto sensu) integration with college students through PIBIC; scientific meetings about research; and international exchanges with other institutions. It can be highlighted these exchanges the ones with the University of California of San Francisco (UCSF), West Virginia University, Faculty of Medicine Kyoto University and George Washington Medical University. Also went to recommend the fundraising search for research projects, which was instrumental in the creation of Keratinocytes Culture Laboratory of the Postgraduate in Plastic Surgery (Researcher Lydia Masako Ferreira/Fapesp), which was continued with another Fapesp 2002-2005 design allowed the research implementation in fibroblast culture research line.

These changes led to obtaining Note 5 in a short time.

# A new phase

At this point the Postgraduate Program in Plastic Surgery has acquired a new face, much renewed and more focused. The areas of concentration gradually lost the characteristic

Programa de Pós-Graduação em Cirurgia Translacional, Universidade de São Paulo - UNIFESP, São Paulo, SP (Postgraduate Program in Translational Surgery, University of São Paulo - UNIFESP, São Paulo, SP), Brazil

Original Article 79

of medical specialty and have acquired the face of research and science. These were the concentration areas and their lines of research:

- 1. Measurement of dentofacial deformities.
- 1.1. Measurement methods in dentofacial deformities.
- ${\hbox{\bf 2. Quality of life as an evaluation method in plastic surgery.}}\\$
- 2.1. Self-esteem, body image and depression in plastic surgery.
- 2.2. Functional capacity and pain in plastic surgery.
- 3. Cell Biology in melanoma.
- 3.1. Sentinel lymph node in melanoma.
- 3.2. Methodology stage melanoma.
- 4. Tissue regeneration ecto and mesodermal.
- 4.1. Keratinocyte culture.
- 4.2. Fibroblast culture.
- $4.3.\ \mbox{Oxidative}$  stress and experimental models in skin transplants,
- 4.4. Regeneration of measuring instruments.
- 5. Methodization and electronic protocols in plastic surgery.
- 5.1. Methodization in surgical research.
- 5.2. Electronic protocols in plastic surgery.

Following a new trend, the program now accepts researchers from all areas of health interested in our lines of research, which was important to increase the number of students as well as the diversification of information and expansion of scientific production.

An important and healthy measure of solidarity was realized for the period 2005 and 2006: the interinstitutional Masters (Minter) with Univas (University of Sapucai Valley). Titrated 23 master's students that were very important as part of the faculty of this university and strengthened the demand for a future Dinter.

In the period 2004-06 the program was note 6 in the evaluation of Capes, then be considered program of excellence. Contributed to this development the improvement in impact factor of publications, more defenses, solidarity programs as minter and adequate flow of students. In this period the scientific production with published articles was 155, and 50 master's theses and 16 PhD.

The objectives were achieved and the parameters to maintain a level of excellence increased.

New guidelines have become requested and directed to the internationalization, expansion of fundraising, patent generation and expansion and improvement of laboratories and general infrastructure structures.

With the expertise gained throughout this period Prof. Lydia began to play a prominent role in postgraduate education in the national surgical area that took her to the coordination of Medicine III and, then, as area coordinator. So, in late 2009 there was a change in the coordination of the program, now with Prof. Dr. Miguel Sabino Neto.

In the period 2008-2010 was held Dinter program with Univas with the formation of 15 doctors. At the end of the new triennium program continued Note 6.

In the second half of 2010 the Pro-rector of Postgraduate in Unifesp keeping the recommendation not to shelter programs with note 3 recommended the closure of some programs. The guidance was to concentrate the programs on basis of research lines and concentration areas, and also their projects. Thus began negotiations with some permanent teachers from Orthopaedics, Anesthesiology, Cardiac Surgery and Vascular programs. From the research lines of the Postgraduate Program in Plastic Surgery and permanent teachers curriculum were selected only guiding with a note 6 program profile. Migrated to our program as guiding Professors Flavio Faloppa, Moses Cohen and John Carlos Bellotti (all of orthopedics) and Prof. Enio Buffolo (heart surgery).

Subsequently quick adjustment on the focus areas and lines of research was done, modified to:

- 1. Measurement of osteoarticular deformities.
- 1.1. Measurement methods in dentofacial deformities.
- 1.2. Joint instabilities
  2. Ouality as an evaluation method.
- 2.1. Self-esteem, body image and depression and sexuality.
- 2.2. Functioning, pain and physical activity.
- 2.3. Cost effectiveness and management in surgery.
- 2.4. Evidence-based medicine.
- 3. Ecto and mesodermal tissue regeneration.
- 3.1. Oxidative stress and experimental models in transplants.
- 3.2. Measuring instruments of tissue and nerve regeneration
- 3.3. Development of minimally invasive techniques.
- 3.4. Culture and cell therapy and stem cells applied to surgery.

## **Translational Surgery**

Over the past 16 years on Postgraduate Program in Plastic Surgery great growth and strengthening occurred to reach Capes Note 6. Some aspects are responsible for such acts, like faculty restructuring, adequacy of research and opening lines to researchers from various fields. With this feature the program lost relationship with the specialty and became more comprehensive research in surgery.

There was also growth and proximity to areas of basic sciences such as molecular biology, physics, biophysics, histology, genetics, tumor biology, tissue engineering, etc. with many collaborations and joint projects being developed.

Some advisors and many lines of research have come with no strict characteristics with plastic surgery, and developed projects in basic research component and guidance for clinical application. Therefore, and also by the presence of advisors and researchers from other areas came within the program the discussion about the appropriateness of his name in relationship with the new/real characteristics, intending to remain consistent with projects and research lines. This demand has been discussed among all advisors and come up to the name of Postgraduate Program in Translational Surgery. This was submitted and approved by the Postgraduate Program Committee in April 2012 and subsequently by the Postgraduate Unifesp Commission and Capes.

The Postgraduate Program in Translational Surgery has streamlined format and currently has 12 permanent professors. They are doctors: Lydia Masako Ferreira, Miguel Sabino Neto, Daniela F. Veiga, Alfredo Gragnani Son, Fabio Nahas, Max Pereira (all plastic surgeons); Silvio Duailibi (dentist) and Flavio Faloppa, Moises Cohen, Rene Abdalla, João Carlos Bellotti and Marcel Jun (orthopedic).

It is noteworthy that 100% of permanent teachers have activity with graduation, undergraduate students and fundraising. From only one researcher of CNPq, now we have seven. Of the 12 teachers, seven are titrated as Livre-Docente and all are members of journals editorial board. Thus, the program has productive and consistent faculty. New teachers are being prepared, which is very important for the replacement of two retirements and one death in the years 2013 and 2014.

There are currently 37 students in master's, 32 doctoral and seven postdoctoral. The titration time has been 20 months for a master's degree and 32 months for the doctorate. In the year 2014 were 16 master's theses and five completed doctorate. It accounted for 72 articles published in 2012, 80 in 2013 and to date 55 in 2015, with a tendency of increase in the strata of B1 to A1.

The program's website has been refurbished and is bilingual and weekly update (http://www.unifesp.br/dcir/cirtrans). In it can be finded all the necessary information for students, teachers and interested in general. We highlight recent inclusion of a bank of online theses.

With the maintenance of note 6 for two periods we receive the Proex budget, which has facilitated the maintenance of our laboratories, scholarship offer to students, support the

80 Original Article

publication of articles among other measures.

In order to advance the internationalization expanded the number of international agreements and number of sandwich PhD students (currently five). We are also getting the first two students from abroad (Colombia and Venezuela).

The solidarity actions have been enlarged and highlight the innovative design with Junior Scientific Initiation from high school students, selected for activities in our laboratories, with the guidance of a doctoral student and supervision of Prof. Lydia.

# CONCLUSION

The Postgraduate Program in Translational Surgery went through difficult times; was submitted to a series of measures, adjustments, cooperation and understanding of the teaching staff, that took the program from note 3 - and almost closing - to a level of excellence keeping note 6 for three consecutive

three-year periods of evaluation. It is a lean program, with adequate number of teachers/students and that has kept: 1) regular production of master's and doctoral theses with appropriate distribution among all teachers; 2) average time of appropriate titration, as well as strict selection of students who resets the withdrawals and cancellations; 3) production of scientific articles in high impact journals and with academic and student participation in most part; 4) progressive and substantial increase in fundraising and patent search; 5) progressive increase in international exchanges with joint production; 6) visibility through new bilingual website and updated weekly; 7) numerous solidarity activities in research, but also in health services for the population and even in basic education; 8) rigorous selection of students (through design analysis, curriculum and teacher training program); 9) maintenance of high levels teachers production; 10) preparing new teachers for guidance through participation as co-supervision and involvement in the program to fit the needs.

#### RESUMO

Objetivo: Mostrar o caminho para alcançar e se manter na nota 6 no processo de avaliação da Medicina III da Capes. Métodos: Foram revisadas as determinações da Capes concernentes ao tema, conceitos 6 e 7, e também as dificuldades e facilidades próprias da execução de um programa que ascendeu à nota 6 após reestruturação e adequação às normas vigentes. Resultados: Os pontos principais para alcançar e manter conceito 6 foram: : 1) produção regular de teses de mestrado e doutorado com distribuição adequada entre todos os orientadores; 2) tempo médio de titulação adequado, assim como rígida seleção do alunado que zera as desistências e cancelamentos; 3) produção de artigos científicos alta em revistas de impacto e com participação docente e discente na sua grande maioria; 4) aumento progressivo e substancial da captação de recursos e busca de patentes; 5) aumento progressivo dos intercâmbios internacionais com produção conjunta; 6) visibilidade através de novo site bilíngue e atualizado semanalmente; 7) inúmeras atividades de solidariedade em pesquisa, mas também em Serviços de Saúde para a população e mesmo no ensino básico; 8) rigorosa seleção dos docentes; 10) preparação de novos docentes para orientação através de participação como co-orientação e envolvimento no programa para se adequar às necessidades. Conclusão: O Programa de Pós-Graduação em Cirurgia Translacional passou por momentos difíceis e que através de uma série de medidas, ajustes e a colaboração e compreensão do seu corpo docente pode sair da nota 3 e quase fechamento, para um nível de excelência mantendo nota 6 em três triênios seguidos.

Descritores - Avaliação educacional. Controle de qualidade. Pós-graduação.

# REFERÊNCIAS

1. http://www.capes.gov.br/avaliacao/instrumentos-de-apoio/clas-sificacao-da-producao-intelectual

- 2. documento da Área Medicina III 2009 http://www.capes.gov.br/avaliacao/instrumentos-de-apoio/documentos-de-area
- 3. documento da Área Medicina III 2012 http://www.capes.gov.br/avaliacao/instrumentos-de-apoio/documentos-de-area

Received on: 19/02/2015

Accepted for publication: 12/09/2015

Conflict of interest: none Source of funding: none

Address for correspondence: Alberto Azoubel Antunes antunesuro@uol.com.br