

Canadian Astronomical Society Société Canadienne d'Astronomie Office of the President Bureau du Président

National Research Council, (250) 363-3460

5071 West Saanich Road, Victoria BC V9E 2E7 laura.ferrarese@nrc-cnrc.gc.ca

To: Isabelle Blain,

NSERC, Vice-President of Research Grants and Scholarships

CC: Janet Walden

NSERC, Acting President

Samir Boughaba Team Leader NSERC, Mathematical, Environmental and Physical Sciences Division

Ainsley McFarlane Program Officer NSERC, Mathematical, Environmental and Physical Sciences Division

Victoria, June 13, 2013

Dear Dr. Blain,

In my role as President of the Canadian Astronomical Society/Société Canadienne d'Astronomie (CASCA), I recently emailed Dr. Boughaba and Dr. McFarlane regarding the disappointingly low level of Canadian representation in the 2012-13 Physics 1505 evaluation panel. Discovery grants are critical to the advancement of astronomical research in Canada, and it is our view that the lack of Canadian astronomers not only undermines the peer review process itself but, unless corrected, will inevitably decouple NSERC from the needs and priorities of the Canadian Astronomical community.

My original letter is enclosed for reference. Although we have received a prompt reply from Dr. Boughaba, unfortunately the reply does not address our concerns, nor offers any reassurance that the situation will (or should) be corrected. While I have responded to Dr. Boughaba's letter, I would also like to bring the issue directly to your attention, not only to reiterate the seriousness of the situation, but also to offer any help I can provide to work towards a solution.

Only 29% of the members of the 2012-13 Physics 1505 evaluation panel work at Canadian institutions – none of them astronomers. Given that most NSERC panels have over 90% of Canadian representation, Physics is a conspicuous outlier. Dr. Boughaba identifies two reason for this. First, the Physics community is small and the field is highly collaborative. Second, Canadian researchers with "appropriate expertise and stature" are not always able to serve.

While there is some truth to both statements, neither can justify why no Canadian astronomers were involved in the review process. Canadian representation in the 1505 conference has been steadily decreasing in recent years: from 48% in 2010-11, to 42% in 2011-12, to 29% in 2012-13. In contrast, the community has not changed appreciably in size, and the number of collaborative projects has only changed by 10% between 1999 and 2010 (quoted from the Hickling Arthurs Low report, page 21, Fig 7). Therefore, neither the size nor the nature of the collaborations can explain the trend mentioned above.

Furthermore, while finding researchers willing to serve on the panel is undoubtedly a challenge, CASCA counts within its members 300 professional astronomers in tenure or tenure-track positions. According to standard citation metrics, astronomy is the first or second ranked research community in Canada: amongst its members are many astronomers of extremely high calibre, covering a wide range of expertise. Selecting at least a few suitable Canadian representatives should be possible even in the face of several rejections. Indeed, for all of CASCA's committees as well as national telescope and time allocation committees, Board of Directors and Science Advisory Committees, finding suitable Canadian members has never been an insurmountable problem.

The fact that most NSERC panels are composed almost exclusively of Canadian researchers (Physics being the exception) is a clear indication that NSERC considers Canadian participation to be vital to the health of the program. Indeed, while foreign astronomers provide a useful prospective, they have little appreciation for the strategic direction of the Canadian community or familiarity with the Canadian university system and the Canadian standards for research productivity, teaching loads, and HQP training. Intimate knowledge of these issues is critical to the process and can only be brought into the panel by reviewers working at Canadian institutions.

I understand that at this time new panel members are being selected to replace those whose term has expired. I reiterate our strong view that Canadian astronomers must be represented. Ultimately, our goal is the same as NSERC's: to ensure a fair and balanced outcome that reflects the needs and priorities of the community. CASCA would be more than willing to work with and assist NSERC – for instance by suggesting names for consideration from within the Canadian community – to ensure that this goal is reached.

Yours sincerely,

Laura Ferrarese

CASCA President

To: Ainsley McFarlane Program Officer

Natural Sciences and Engineering Research Council of Canada Mathematical, Environmentale and Physique Sciences Division

Samir Boughaba Team Leader Natural Sciences and Engineering Research Council of Canada Mathematical, Environmentale and Physique Sciences Division

CC: Isabelle Blain, NSERC, Vice-President of Research Grants and Scholarships

Janet Walden NSERC, Acting President

Victoria, May 16, 2013

Dear Dr. McFarlane, Dear Dr. Boughaba,

I am writing on behalf of the Canadian Astronomical Society/Société Canadienne d'Astronomie (CASCA), to express concern about the absence of Canadian astronomers in the 2012-13 Physics 1505 evaluation panel.

According to data publicly available on the NSERC website, in the last competition, 29% of the 1505 reviewers worked at Canadian institutions. This is a significantly lower percentage than for any other discipline: with the exception of Computer Science (1507, 55% Canadian representation), all other panel are composed of 80% or more Canadian reviewers. In the past few years, the level of Canadian representation in the 1505 conference has been consistently falling: from 48% in 2010-11, to 42% in 2011-12, to 29% in 2012-13. This trend has been the cause of significant concern to the reviewers, and indeed has prompted strong and repeated recommendations from former panel Chairs to NSERC stressing that Canadian representation needed to be increased.

Of particular concern to CASCA is the fact that, in 2012-13, none of the Canadians on the 1505 panel were astronomers: of the six reviewers listed as having astronomy expertise, five were from the US, one from France.

While some foreign representation is beneficial, a significant Canadian component is vital. As detailed below, we believe that the exclusion of Canadian representatives undermines the peer review process and, unless corrected, will inevitably decouple NSERC from the needs and priorities of the Canadian Astronomical community.

Foreign astronomers provide a useful prospective, but have little appreciation for the strategic direction of the Canadian community. Their research priorities will in general be different from ours, and align with their own National plans. The US Decadal Plan and the Long Range Plan for Canadian Astronomy differ

in many significant aspects; the all too real danger is that the predominance of US reviewers in the 1505 conference will lead to US priorities being enforced on Canadian astronomers.

Furthermore, a pre-requisite for a fair peer-review process is that the reviewers must be familiar with the Canadian university system and the Canadian standards for research productivity, teaching loads, and HQP training. The US system is significantly different from ours: funding opportunities are more numerous and come from a variety of sources. Teaching loads are different. Generally speaking, it is easier to support students and postdoctoral fellows within the US system, and many US universities can rely on a steady number of independently funded postdoctoral fellows which is far higher than available in Canada. As a consequence, an excellent HQP training record for a researcher in a Canadian university might not appear overly impressive to our US colleagues. This could easily translate in a downgrade unless the reviewers are familiar with Canadian standards.

Finally, but equally important, within the current review system Canadian proposal intellectual property is effectively being handed out primarily to foreign countries. This is widely recognized as undesirable: for instance, Canadian telescope proposals are preferentially reviewed by Canadian astronomers precisely to avoid leakage of concepts and ideas.

CASCA fully realizes that the relatively small size of the Canadian astronomical community, combined with the need to avoid conflict of interests, presents challenges to the selection of panel members. However, these challenges can and must be overcome. Identifying high calibre Canadian representation has always been possible for all other Canadian astronomical committees, including CASCA's committees, Canadian Time Allocation Committees, Science Advisory Committees and Board of Directors of astronomical facilities with Canadian interest. We see no reason why NSERC should be an exception.

CASCA would appreciate a response from NSERC detailing the reasons that allowed this situation to arise, and a reassurance that it will be corrected in future competitions.

Yours sincerely,

Laura Ferrarese

CASCA President