UNIVERSITÀ DEGLI STUDI DI PALERMO

Dipartimento di Scienze della Terra e del Mare (DiSTeM)

COD. FISC. 80023730825 ~ P.IVA 00605880822

To the chair of the election committee of the
IAVCEI EC for the 2019-2023 term
Prof. Setsuya Nakada
nkd.sty@icloud.com

Object: Nomination of Dr Patrick Allard as **IAVCEI President**, 2019-2023

Palermo, December 6 2018

I am writing this letter to propose my nomination of Dr Patrick Allard as **IAVCEI President** for the 2019-2023 term.

Patrick has been for more than 40 years one of the most active and productive volcanologists worldwide. His research has contributed enormously to development of many aspects of volcanological research. He certainly occupies a central role among the founders of the field of volcanic gas studies. Patrick's pioneering work on the isotope composition of volcanic gases, since the last 1970s, has paved the way to first understanding of the origin and cycling of fluids in magmatic environment, and has deeply impacted the field of volcanic gas chemistry. Later in the 1980s-early 1990s, Patrick was among the first to discover the large quantities of deeply derived C that are diffusely degassed by soils, flanks and fractures in the surrounding of active volcanoes. These studies contributed to opening the way of a new discipline in volcanology (soil CO_2 degassing), that is today key to our understanding of volcanic processes, and to volcano monitoring. In the early 1990s, Patrick was the first to demonstrate the value of airborne volcanic gas measurements. He used these novel results to first quantify the volatile output of some key volcanic targets (Etna, Stromboli). He was also the first to link such volcanic gas emission results with petrological information on volatile contents in magmas (from melt inclusions). These quantitative models ultimately shed light into degassing mechanisms and budgets (e.g., volume and storage depth of degassing magmas) of mafic volcanoes. Later in the years, Patrick pioneered work on the atmospheric impact of volcanic gas emissions via analysis of trace element fluxes from volcanoes. More recently, Patrick was among the first to realize the importance of remote gas sensing methods in volcanology, and contributed the first FTIR observations of eruptive volcanic clouds, that are now yielding to a real revolution in our ability to infer eruption dynamics and triggers from volcanic gas information.

Patrick is today Emeritus CNRS Director of research, attached to IPGP. He has served as co-leader of the IAVCEI Commission on the Chemistry of Volcanic Gases (CCVG) (2011-2014), and has just terminated his mandate as IAVCEI Vice-President for the 2015-2019 period. During his mandate as Vice-President, Patrick has actively contributed in fostering IAVCEI role in science and society, and has led a variety of activities and role.

I have thus no reserves to nominate Patrick as an ideal candidate to act as IAVCEI President for the 2019-2023 term.

Prof. Alessandro Aiuppa

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Patrick ALLARD, Directeur de recherche CNRS émérite
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Date: 08/01/2019

Object: Candidature as President of IAVCEI for the term 2019-2023

To: Prof. Setsuya Nakada, Chair of IAVCEI Elections Committee

Dear Setsuya-san,

I confirm you to accept my nomination as candidate to the Presidency of IAVCEI for the term 2019-2023. It's a great honor to be nominated for such a prestigious responsibility by a non-less prestigious panel of scientific colleagues, including two former IAVCEI presidents.

I am fully aware of the duties and responsibilities in presiding IAVCEI over a 4-yr mandate and I modestly believe to be quite well prepared to the role.
First, I have a rich, 48-yr long experience in Volcanology, having studied active volcanoes worldwide, stayed in diverse volcano Observatories and participated to hazard assessment during several volcanic crises. I am thus trained with both basic research, eruption forecasting, and hazard mitigation on volcanoes.
Secondly, IAVCEI has long been my second family. In the past thirty years I served as Secretary (1991-1996) then co-Chair (2011-2014) of the Commission on the Chemistry of Volcanic Gases (CCVG), as member of the scientific Committee of the 2013 General Assembly (Kagoshima), as Associate Editor of the Bulletin of Volcanology (2015-present), and then as IAVCEI vice-President for the term 2015-2019. As a vice-president I actively contributed with other EC members to promote the role of our Association. In particular, I have been the promoter of the new IAVCEI Award for Volcano Surveillance and Crisis Management (attributed, for the first time, to our Indonesian colleagues in Sept. 2018) and, together with co-VP Shan da Silva, I managed to dynamize our IAVCEI thematic Commissions. I am just now organizing the symposium that will celebrate the centenary of IAVCEI during the IUGG-2019 Assembly in Montreal. Based on that experience, I am thus familiar with the functioning of IAVCEI and have a quite clear viewing of its potential growth in near future. In particular, if elected, I'll work to attract more members from developing volcanic countries - which often face difficulties to attend our scientific meetings and assemblies – and try to better co-involve our many colleagues working in volcano Observatories worldwide. I'll also attempt to promote improved gender equity

within our Association, with in mind the possibility of a first female IAVCEI presidency in 2023.
Finally, I emphasize that my position of emeritus Director of Research within French CNRS, which avoids me being directly responsible of PhD students or/and research contracts, adds another favorable condition to be a fully dedicated president of IAVCEI.

In summary, I'll dedicate the energy, enthusiasm and due time this role deserves, in order to further develop the international outreach of IAVCEI during the 2019-2023 term.

Please also find the short summary outlining my current position, research interests, and my activities related to IAVCEI. A one-page CV was sent separately to my nominator-in-chief, Prof. A. Aiuppa.

With my best regards,

Patrick Allard

Patrick ALLARD Summary

- **Current position**

I am presently Director of research emeritus in French CNRS, with a nomination extending until 19 December 2024. I am attached to IPGP in Paris, in the team 'Volcanic Systems'. I am also Associate researcher with INGV (Catania, Italy), since 2003, and President of the Volcanology section of the French CNFGG (National Committee for Geophysics & Geodesy), since 2002. During my carrier I worked permanently in different research Institutes in France (CFR, LSCE, Laboratoire Pierre Süe, IPGP) and, temporarily, in Italy, Japan and Singapore. Recently, I stayed as invited professor in the Earthquake Research Institute of Tokyo University (April-July 2013 and Sept.-Dec. 2015), then in the Earth Observatory of Singapore (Jan.-March 2017 and Jan-April 2018).

- **Research interests**

For 48 years I have been involved in studying active volcanoes and became specialized with the study of volcanic fluids and magma degassing processes. I studied volcanic activity and degassing in various regions of the world (Italy, Iceland, Azores, Capo Verde, Greece; Lesser Antilles and Reunion island; Afar, RD Congo; Central America, Indonesia, Japan, New Zealand, Vanuatu, Kamchatka, Philippines, Galapagos), by using a wide variety of tracers and instrumental approaches: from stable and radioactive isotopes to remote sensing tools (UV and OP-FTIR spectroscopy), diffuse soil degassing and airborne measurements in volcanic plumes. I am author or co-author of about 140 publications in A-ranked journals, monographs and books, among which 7 in *Nature* and 1 in *Science* (h-index = 37 (ISI), 42 (RG)). I early promoted the need to investigate magma degassing processes in their broadness, from depth to the surface, by combining research on both gas emissions and dissolved volatiles in magmas (crystal melt inclusions), as well as to closely correlate degassing data with geophysical signals, in order to better understand how volcanoes work and forecast their eruptions. I always enjoy to remind how volatile components play key roles in magmatic and volcanic processes!

More broadly, I am trained with the multidisciplinary approach of volcano monitoring and eruption emergency management. I early had responsibilities in this domain, as a scientific advisor to the French Government (secretary of the French Committee for Volcanic Risk Mitigation, 1983-1985), as a member of various French and Italian scientific committees, as scientific responsible of the geochemical survey of Mt. Etna (2000-2001, upon request of F. Barberi), and through several long stays in volcano Observatories (Soufrière of Guadeloupe, Vesuvius, Etna, ERI, EOS).

In addition to eruption forecasting, my current research interests are focused on three topics: (i) Measuring and modeling the high-frequency dynamics of magma degassing processes *during* effusive and explosive eruptions, by coupling remote sensing tools (open-path FTIR spectroscopy and UV-cameras) and then correlating with geophysical signals (seismic tremor, infrasound, micro-gravimetry, Doppler radar, etc.); (ii) Quantifying the global volcanic fluxes of volatiles, from major to trace components (in 2012-2018 I have been active member of the DCO-DECADE international project on deep carbon degassing); and (iii) Chemical-isotopic tracing of the interactions between magmatic fluids and hydrothermal systems at dormant volcanoes.

- **Activities related to IAVCEI**

- 1991-1997: Secretary of the IAVCEI Commission on the Chemistry of Volcanic Gases (CCVG), elected twice

- 2011-2014: co-Leader of CCVG, elected together with G. Chiodini,
- 2012-2013: invited member of scientific Committee of IAVCEI-2013 in Kagoshima
- 2015-present: Associate Editor of the Bulletin of Volcanology
- 2015-2019: vice-president of IAVCEI

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Curriculum Vitae

Patrick ALLARD, 69, Director of research emeritus within French CNRS
Associate Researcher with INGV (Italy), Catania section, since 2003
President of the Volcanology section of CNFGG (French National Committee for Geophysics & Geodesy), since 2002
Vice-president of IAVCEI (2015-2019)
Associate Editor of Bulletin of Volcanology (2015-present)
Spoken foreign languages: English and Italian (fluently), Spanish (partly)

Professional experience

- 48-year experience in studying active volcanoes on different continents (Afar, Congo, Italy, Iceland, Azores, Capo Verde, Greece, Antilles, Reunion, Central America, Indonesia, Japan, N. Zealand, Vanuatu, Kamchatka, Philippines, Galapagos)
- Trained with multidisciplinary monitoring in volcano Observatories (Soufrière of Guadeloupe 1976-78; Vesuvius Observatory 1986-88; Etna, Catania, Poseidon System 2000-2001; INGV 2003-present) and with eruptive emergency management (Guadeloupe, Indonesia, Italy, RD Congo)
- Coordinator and/or PI of research programmes and contracts at both national (INSU-CNRS, French ANR, Italian GNV and MIURST), bi-lateral (Italy, Indonesia, Central America, Azores, Vanuatu), European ("Etna's Volatiles", "Furnas Volc. Lab.", "AGMV"; "MVRRS", "MED-SUV") and international (DCO-DECADE) scales.
- Chairman or/and co-convenor of sessions at international meetings: AGU, EGU, IAVCEI, IUGG, GNV and INGV (Italy), CNFGG (France)
- Recent stays as invited professor: ERI, Tokyo (April-July 2013 and Sept.-Dec. 2015); EOS, Singapore (Jan.-March 2017 and Jan-April 2018)

Selected national and international responsibilities

- Scientific advisor to the French Government for the Mitigation of Major Hazards; Secretary of the French Committee for Volcanic Risk Mitigation (CSERV, 1983-1985).
- Executive secretary of the IAVCEI Commission on "Chemistry of Volcanic Gases" (1991-1997)
- Member of the Italian Commission for triennial Programing in Volcanology (1998-1999)
- Scientific responsible of Etna's geochemical monitoring (Poseidon System, 2000-2001)
- Co-Leader of the IAVCEI Commission on "Chemistry of Volcanic Gases" (2011-2014)
- Member of the Observation Service in Volcanology of French CNRS-INSU (2010-2012)
- Responsible of IPGP's Transverse Research Program in Volcanology (2012-2014)
- Member of scientific program Committee of IAVCEI-2013 Assembly (Kagoshima, Japan)
- Member of steering committee 'Reservoirs & Fluxes' of the Deep Carbon Observatory (2012-2019)

Research field

Geochemistry of magmatic fluids and magma degassing processes: chemical and isotopic composition of magmatic gases (H, C, O, S, He); mass fluxes of gaseous species and trace metals in volcanic plumes (ground-based/airborne measurements); magma degassing processes and budgets (coupling volatile fluxes and melt inclusion studies); OP-FTIR remote sensing of magmatic gas composition during effusive and explosive eruptions; chemical and isotopic tracking (^{3}He, ^{13}C, trace metals) of interactions between magmatic fluids and hydrothermal systems; diffuse volcanic soil degassing (CO_2, He, ^{222}Rn), survey and impact on ^{14}C-^{13}C in plants (radiocarbon aging effects); Doppler radar sensing of eruptive jet velocities; cross-correlation between geochemical and geophysical precursors of eruptions.

Selected publications

Moretti R., Métrich N., Arienzo I., Di Renzo V., Aiuppa A., **Allard P.**, (2018) Degassing vs. eruptive styles at Mt. Etna volcano (Sicily, Italy). Part I: Volatile stocking, gas fluxing, and the shift from low-energy to highly explosive basaltic eruptions. *Chem. Geol.* 482, DOI: 10.1016/j.chemgeo.2017.09.017. Citations : 5

Allard P., Burton M., Sawyer G., Bani P. (2016) Degassing dynamics of basaltic lava lake at a top-ranking volatile emitter: Ambrym volcano, Vanuatu arc. *Earth Planet. Sci. Lett*. 448, 69-80. Citations: 5

Allard P., Aiuppa A., Bani P., Métrich N., Bertagnini A., Gauthier P-J., Shinohara H., Sawyer G., *et al.* (2016) Prodigious emission rates and magma degassing budget of major, trace and radioactive volatile species from Ambrym basaltic volcano, Vanuatu island Arc. *J. Volcanol. Geotherm. Res*. 304, 378–402. Citations: 21

La Spina A., Burton M., **Allard P.**, Alparone S., Murè F. (2015) Open-path FTIR spectroscopy of magma degassing processes during eight lava fountains on Mount Etna. *Earth Plan. Sci. Lett*. 413, 123–134. Citations: 17

Allard P., Aiuppa A., Beauducel, Gaudin D., Di Napoli R., Crispi O., Calabrese S., Parello F., Hammouya G., Tamburello G. (2014) Steam and gas emission rate from La Soufriere volcano, Guadeloupe (Lesser Antilles): implications for the magmatic supply during degassing unrest. *Chemical Geology* 384, 76–93. Citations: 23

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Allard P., Behnke B., D'amico S., Neri M., Gambino S. (2006) Mount Etna 1993-2005: Anatomy of an evolving eruptive cycle. *Earth Science Reviews*, 78, 85-114, 10.1016/j.earscirev.2006.04.00260. Citations: 212

Baubron J.C., **Allard P.**, Toutain J.P. (1990) Diffuse volcanic emissions of carbon dioxide from Vulcano island, Italy. *Nature*, 344, 51-53, DOI: 10.1038/344051a0. Citations: 191

Aiuppa A., **Allard P.**, D'Alessandro W., Michel A., Parello F., Treuil M., Valenza M. (2000) Mobility and fluxes of major, minor and trace metals during basalt weathering and groundwater transport at Mt. Etna volcano (Sicily). *Geochim. Cosmochim. Acta*, 64, 11, 1827-1841, Citations: 190

Métrich N., **Allard P.**, Spilliaert N., Andronico D., Burton M. (2004) 2001 flank eruption of the alkali- and volatile-rich primitive basalt responsible of Mount Etna's evolution in the three decades. *Earth Plan. Sci. Lett.*, 228, 1-17. doi: 10.1016/j.epsl.2004.09.036. Citations: 188

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De Natale G., Pingue F., **Allard P.**, Zollo A. (1991) Geophysical and geochemical modelling of the 1982-1984 bradyseismic unrest at Campi Flegrei caldera, Southern Italy. *J. Volcanol. Geotherm. Res.* 48, 199-222. Citations: 124

Spilliaert N., Métrich N., **Allard P**. (2006) S-Cl-F degassing pattern of water-rich alkali basalt: modelling and relationship with eruptive styles on Mount Etna volcano. *Earth Plan. Sci. Lett.*, 248,772-786. Citations: 116

Baubron J.C., **Allard P.**, Sabroux J.C., Tedesco D., Toutain J.P. (1991) Soil gas emanations as precursory indicators of volcanic eruptions. *J. Geol. Soc. London*, 148, 571-576, Citations: 115

Allard P., Maiorani A., Tedesco D., Cortecci G., Turi B. (1991) Isotopic constraints on the origin of sulfur and carbon in Solfatara fumaroles, Campi Flegrei caldera. *J. Volcan. Geotherm. Res*., 48, 139-159. Citations: 106

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Allard P., Aiuppa A., Loyer H., Carrot F., Gaudry A., Pinte G, Michel A., Dongarra G. (2000) Acid gas and metal emission rates during long-lived basalt degassing at Stromboli volcano. *Geophys. Res. Lett*. 27, 1207-1210. Citations 101

Parello F., **Allard P**., D'Alessandro W., Federico C., Jean-Baptiste P., Catani O. (2000) Isotope geochemistry of Pantelleria volcanic fluids, Sicily Channel Rift: A mantle end-member for volcanism in Southern Europe. *Earth Planet. Sci. Lett.*, 180, 325-339, DOI: 10.1016/S0012-821X(00)00183-7. Citations: 78

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Tedesco D., **Allard P.**, Sano Y., Wakita H., Pece R. (1991) Helium-3 in subaerial and submarine fumaroles of Campi Flegrei caldera, Italy. *Geochim. Cosmochim. Acta*, 54, 1105-1116. Citations: 71

Allard P. (2010) A CO_2-rich gas trigger of explosive paroxysms at Stromboli basaltic volcano. *J. Volcanol. Geotherm. Res*., 189, 363–374. DOI: 10.1016/j.jvolgeores.2009.11.018. Citations: 70

United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Jacob B. Lowenstern
USGS Cascades Volcano Observatory
1300 SE Cardinal Court, Suite 100
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IAVCEI election committee chair
Professor Setsuya Nakada

20 December 2018

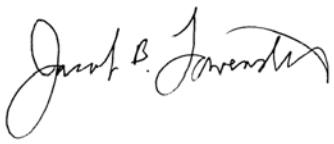
I fully support the existing nomination of Dr. Patrick Allard as IAVCEI President for the period 2019-2023.

As well as having an extremely distinguished career as a gas geochemist, volcanologist, and research mentor to scores if not hundreds of scientists, Dr. Allard has dedicated himself to improving the global volcano community. He has been an impassioned proponent of education, capacity building, and best practices for volcano monitoring and response. His efforts as such are evident in the recent 4 years he spent as IAVCEI Vice President.

It's worth reflecting on Dr. Allard's service to IAVCEI and volcanology over the past decades. He has served as Secretary and co-chair of the Commission on the Chemistry of Volcanic Gases, he has been on meeting committees, and an associate editor of the Bulletin of Volcanology. As Vice President, he championed the new medal for Volcano Surveillance and Crisis Response Award, which provides long-needed focus on the oft-overlooked volcano observatories in some of the most volcanically active places on Earth. Outside of IAVCEI, he has the vice-chair of the DCO-DECADE international project on deep carbon degassing and clearly one of the most impactful volcano-science programs of the last 20-30 years. Finally, he has spent considerable time working at volcano observatories in Guadeloupe, Italy, Japan, and Indonesia. He thus understands both the research side of volcanology, and the role of volcano observatories in providing the leading edge of volcanic risk mitigation.

For these reasons, I enthusiastically reinforce the nomination of Dr. Patrick Allard for President of IAVCEI.

Sincerely yours,



Jacob B. Lowenstern, Chief
Volcano Disaster Assistance Program, USGS

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12th January, 2019.

LETTER OF SUPPORT FOR THE NOMINATION OF PATRICK ALLARD FOR THE POSITION PRESIDENT OF IAVCEI

It is a pleasure to write this letter of support for the nomination of Patrick Allard for the position of President of IAVCEI. Patrick has an enviable reputation as an outstanding researcher in the field of volcanic gas chemistry. I have known of his work and admired it since about 2000. We had met once or twice before 2015 when Patrick was elected Vice president of IAVCEI, but since then, as members of the IAVCEI executive committee, I've come to know Patrick well and to respect him as a proactive, constructive, and sensible member of the committee. As Vice President Patrick has promoted a number of issues that have helped IAVCEI (e.g. implementation of the new Volcano Surveillance and Crisis Management Award), and most recently he has taken responsibility for the planning of the IAVCEI centenary symposium at the August, 2019 IUGG General Assembly in Montréal, Canada.

Patrick has been long-term contributor to IAVCEI, initially as the secretary of the Commission on Volcanic Gases (1991-1996), and later as co-leader of the commission (2011-2015). In addition, he is a member of the editorial board of the Bulletin of Volcanology (2015-), and since 2015 has served as one of two vice presidents of IAVCEI. In that period Patrick has experienced how IAVCEI operates as the leading international learned association in the field of volcanology research. Patrick also has extensive experience in the management of national CNRS research programs in his native France.

In my experience Patrick considers all issues on their merits, he listens to everyone's points of view, considers them fairly, and then makes up his mind. He is always polite and friendly and communicates well with everyone, irrespective of whether they are senior figures or new young students.

I therefore have no hesitation in fully supporting the nomination of Patrick Allard for the position of President of IAVCEI. With his extensive research experience, management experience, and having been a proactive member of one of IAVCEI's most active research commissions, the editorial board of BV and the IAVCEI Executive Committee, Patrick has the ideal background to become President. I have no doubt that he will be extremely conscientious and an effective President, and will work to advance the interests of all IAVCEI members and of the Association as a whole.

Ray Cas

Ray Cas,
Current member of the IAVCEI Executive Committee as Immediate past-President
Emeritus Professor, Monash University and Research Adjunct, University of Tasmania, Australia .

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Prof. Setsuya Nakada
Chair of the election committee of the IAVCEI
12 January 2019

Dear Professor Nakada,

I am writing to support the nomination of Dr Patrick Allard as President of IAVCEI.

Dr Allard is one of the World's foremost volcanic gas geochemists. He has a highly distinguished career in research and academia with a reputation for openness, collegiality and enthusiasm. Dr Aiuppa has summarised his exceptional scientific contributions in his nomination letter, so I won't repeat these here. What makes Patrick very suitable for this post is that he has such a wide experience of both cutting edge research in volcanology and the application of volcanology is volcanic crises in a career spanning over 45 years. He knows many parts of the world with active volcanoes and has established excellent relationships with numerous colleagues and institutions. His wide knowledge of the volcanological community makes him an excellent choice as President, noting that he has already served a term as Vice-President with distinction.

Yours sincerely,

Stephen Sparks

Professor Steve Sparks

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Istituto Nazionale di Geofisica e Vulcanologia

Sezione di Pisa

Pisa, January 12th 2019

Dr. Augusto Neri
Director of Volcanoes Department of INGV

To the Chair of the Election Committee of the
IAVCEI Executive Committee
for the 2019-2023 term
Prof. Setsuya Nakada
nkd.sty@icloud.com

Re: Letter of support for the nomination of Dr. Patrick Allard as President of IAVCEI.

Dear Prof. Nakada,

I am writing this letter to strongly support the nomination of Dr. Patrick Allard as next President of IAVCEI as proposed by Prof. Alessandro Aiuppa. Such a support is well-founded on the special contributions that Dr. Allard has given to modern volcanology and mitigation of volcanic risk in the last more than 40 years, as well as for his generous long-lasting services to the broad volcanological community including IAVCEI.

My full support is particularly spontaneous since I have had the pleasure to know him personally since many years. I first met Patrick in 1992 during the Mt. Etna effusive eruption that started in late 1991. I was immediately impressed by his deep and open-minded knowledge of the volcanic system, his generous effort to provide useful insights in terms of volcanic hazards as well as by his unique friendly and always collaborative personality.

The above is just an example of the many innovative contributions Dr. Allard gave to volcanological research and community. I want just to mention here the studies Patrick carried out to better understand the role of volcanic gasses, i.e. the true "fuel" of volcanic activity, in pre-eruptive and eruptive processes, the techniques and tools he designed and developed to quantify key geochemical measurements and parameters, as well as the multidisciplinary approach he pioneered in order to gain a deeper understanding of the volcanic system as a whole. The findings of these studies represent fundamental contributions to modern volcano science and certainly make of Dr. Allard one of the scientists that most influenced the progress of this science in the last decades.

Dr. Allard's research work on volcanic gasses and geochemistry cannot obscure his equally fundamental contributions to volcanic hazard and management of volcanic crises. In particular, he generously participated in many crises and eruptions in Europe (e.g. Etna, Stromboli, La Soufriere of Guadeloupe, Azores Islands, French Antilles, Reunion, Iceland) and internationally (e.g. Afar, Congo, Central America, Indonesia, Japan, N. Zealand, Vanuatu, Kamchatka, Philippines) often providing fundamental contributions during the emergency.

Finally, I wish to mention the enthusiasm that Dr. Allard always put in his work and the services he provided to the volcanological community (including many to IAVCEI, for instance as leader of Commission and more recently as Vice-President), therefore representing an ideal collaborator and guide for many colleagues, students, institutions and organizations who had the pleasure to work with him. His great experience together with his recognized leadership would be just ideal in the role of IAVCEI President.

All in all, based on my personal direct experience, as well as on an objective evaluation of his long-lasting scientific and societal contributions, I can firmly state that Dr. Allard is certainly one of the very few scientists that mostly contributed to the development of a modern and quantitative volcanological science as well as to the mitigation of volcanic risk. All the above makes him an ideal candidate as next President of IAVCEI.

Sincerely Yours,

Augusto Neri, PhD