ANEXO - RESUMO EM INGLÊS

Call for Faculty Position, Announcement 13/2022/CENA/DVACAD

FACULTY POSITION OPENING FOR A DOCTOR ASSISTANT PROFESSOR AT THE CENTER OF NUCLEAR ENERGY IN AGRICULTURE, UNIVERSITY OF SÃO PAULO, BRAZIL.

The Dean of the Center of Nuclear Energy in Agriculture, University of São Paulo (CENA/USP), Brazil, announces the opening of a faculty position (position Nº 1029398, full-time dedication service). Interested applicants should hold a Ph.D. title. Applications will be accepted from July 6th, 2022, at 8 a.m., to October 3rd, 2022, at 5 p.m. (GMT -3).

The position requires commitment to teaching and ability to conduct independent research in the study area: "Stable isotopes of light elements (C, N) in agronomic and environmental research". The public tender process will comprehend the following program:

1) Isotope Ratio Mass Spectrometry for light elements (IRMS): fundamentals, instrumentation, measurement methods and analytical technique use in agronomic and environmental applications;
2) Isotopic dilution in studies with stable isotopes of light elements: C, N. Tracer technique exploring natural variations and with marked compounds in heavy isotopes of light elements in agronomic and environmental studies;
3) Methods of isotopic separation of light elements (C, N) and synthesis of marked compounds of interest in agronomic and environmental research;
4) ^{13}C:^{12}C isotopic ratio in carbon cycle studies. Atmospheric CO_2 isotopic composition in C3, C4 and CAM photosynthetic cycle plants; ^{13}C soil isotopic composition variability; environmental factors that drive these reservoirs isotopic composition;
5) ^{15}N:^{14}N isotopic ratio in nitrogen cycle studies. Plants and soil Isotopic composition, and environmental factors that drive these reservoirs isotopic composition;
6) Use of ^{15}N:^{14}N ratio in agricultural and environmental studies. Isotopic dilution methods for symbiotic fixation evaluation (delta ^{15}N per thousand); N root absorption and translocation using marked fertilizers; use of N-fertilizers and other nitrogen compounds by plants; evaluation by isotopic dilution using the tracer technique; evaluation of N losses (volatilization, denitrification and leaching) from nitrogen fertilizers using isotopic methodology;
7) Use of the ^{18}O:^{16}O and H:D ratios in the hydrological cycle considering water dynamics in the soil-plant-atmosphere system.

The public tender will be disciplined by Brazilian constitutional principles, notably that of impersonality, as well as by the provisions of the Statute and General Regulations of the University of São Paulo and the Internal Regulations of the CENA/USP. The exams can be performed in Portuguese or English.

The official announcement in Portuguese is available at https://uspdigital.usp.br/gr/admissao where registration applications must be made during the period stated above.