UNIVERSITATEA BABEŞ-BOLYAI
TRADIȚIE ȘI EXCELENȚĂ

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ANUNT

Universitatea Babeş-Bolyai, anunţă organizarea concursului pentru ocuparea postului de **cercetător ştiințific**, vacant în cadrul proiectului cu titlul "O abordare computațională spre descifrarea sarcinii structurii aripilor la păsări: implicații pentru evoluția zborului și biomimetică", cod PN-III-P4-ID-PCE-2016-0572, nr. contract 182/2017:

Cercetător stințific (postdoctorand)[1] - 1 post

Norma de lucru: (8 ore/zi),

Perioada angajării : determinata _02.10.2017– 31.12.2019

Data la care are loc selecţia: 26.09.2017

Ora: 12:00

Locul desfasurarii concursului: Facultatea de Biologie și Geologie, Departamentul de Geologie (sala, se va anunța ulterior)

I. Dosarele de concurs se vor depune până la data de 25.09.2017, ora: 14:00 la *Biroul Structuri Didactice* (Str. M. Kogalniceanu nr. 1), persoana de contact: Teodora Capota (tel +40264405300 int. 5102);

II. Conţinutul dosarului de candidatura :

- cerere de înscriere la concurs
- curriculum vitae;
- copie după diploma de doctor;
- lista lucrărilor publicate

III. Condiţii specifice necesare pentru ocuparea postului de ***Cercetător ştiințific***

1) minimum 2 ani de experiență;

[1] Descriere Euraxess Jobs: The postdoc will take responsibility for collecting biomechanical and structural data on bird feathers, mostly from bird carcasses, but also from the fossil record. One key aspect of this project is to understand the internal and external structure of feathers to that these characteristics can be related to (1) function and (2) wing shape. The postdoc will also take responsibility for supervising the work of the project MSc student. In order to perform this role experience in anatomy, ornithology, biomechanics, and the use of high-resolution (and standard) imaging techniques will be required. The goals of this role are to: (1) collect data on feather shapes, internally and externally; (2) determine the nature of the keratin protein that comprises the internal structure of bird feathers; (3) analyze these data in a qualitative framework and feed data into the wider project phylogenetic comparative analyses; (4) supervise the work of the project MSc student. The postdoc will also be responsible for presenting project outputs at conferences and assisting with writing papers and reports.

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2) minimum 2 articole din categoria peer-review;

3) probe de selecţie:

- Analiza dosarului candidatului (eliminatorie);

- Interviu;

IV. Alte condiţii de selecţie şi condiţii de desfasurare a selecţiei:

Nota minima la fiecare probă: 7

Modul de calcul al notei finale: media notelor la probele 1 şi 2

Ierarhizarea candidatilor: conform mediei la probele 1 si 2

V. Tematica: Paleobiologie, Biologie evolutivă, Biomechanică

VI. Bibliografia:

Biewener, A. & Dial, K. 1995. In vivo strain in the humerus of pigeons (Columba livia) during flight. Journal of Morphology 225, 61–75.

Bruderer, B., Peter, D., Boldt, A., & Liechti, F. (2010). Wing-beat characteristics of birds recorded with tracking radar and cine camera. Ibis, 152, 272-291.

Chiappe, L. & Dyke, G. (2002). The Mesozoic radiation of birds. Annual Review of Ecology and Systematics, 33, 91-124.

Laurent, C., Palmer, C., Boardman, R.P., Dyke, G. & Cook, R. (2014). Nanomechanical properties of bird feather rachises: exploring naturally occurring fibre reinforced laminar composites. Journal of The Royal Society Interface, 11, 20140961.

Lazos, B. & Visser, K. 2006. Aerodynamic comparison of hyper-elliptic cambered span (HECS) wings with conventional configurations. 24th Applied Aerodynamics Conference 5 - 8 June 2006, San Francisco, California

Newton, I. (2008). The Ecology of Bird Migration. Academic Press, London, UK.

Norberg, U. M. (1990). Vertebrate Flight: Mechanisms, Physiology, Morphology, Ecology and Evolution. Berlin, Germany: Springer-Verlag.q

Osváth G., Sándor K., Vincze O., Bărbos L., Marton A., Nudds R.L., & Vágási C.I. (2015). Interspecific variation in the structural properties of flight feathers in birds indicates adaptation to flight requirements and habitat. Functional Ecology, 29, 746-757.

Pap, P. L., Osváth, G., Sándor, K., Vincze, O., Bărbos, L., Marton, A., & Vágási, C.I. (2015). Interspecific variation in the structural properties of flight feathers in birds indicates adaptation to flight requirements and habitat. Functional Ecology, 29, 746-757.

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Pennycuick, C. (2008). Modelling the Flying Bird. Academic Press.

Rayner, J. M. V. (1988). Form and function in avian flight. In R. F. Johnston (Ed.), Current Ornithology, volume 5, pp 1–66). New York, NY: Plenum Press.

Rayner, J. M. V. (1990). The mechanics of flight and bird migration performance. In E. Gwinner (Ed.), Bird Migration. Physiology and Ecophysiology (pp. 283–299). Heidelberg, Germany: Springer-Verlag.

Vágási, C.I., Pap, P.L., Vincze, O., Osváth, G., Erritzøe, J., & Møller, A.P. (2015). Morphological adaptations to migration in birds. Evolutionary Biology, 43, 48-59.

Wang, X., Nudds, R.L., Palmer, C., & Dyke, G. (2012). Size scaling and stiffness of avian primary feathers: implications for the flight of Mesozoic birds. Journal of Evolutionary Biology, 25, 547-555.

RECTOR

Acad.Prof.Dr.Ioan-Aurel POP

Director proiect

Dr. Gareth J. Dyke