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BOOK OF ABSTRACTS

Thessaloniki 2011

remarkably (two fold). Removing of the labeled substrate and replacement of culture medium after 3 h HS led to the decreasing of labeled phosphatidylethanolamines (PE) and particularly phosphatidylcholines (PC) value on the background of increase of labeled phosphatidic acids (PA). These date give evidence, that the origin of PA is the PC and PE degradation by phospholipase D.

PA, as PC and PE, was the main component of the membrane lipids under HS. We propose that PA performs the essential role in adaptation to HS. Perhaps, PA participates in formation of negative curvature of membranes and subsequent vesicle formation, endo- and exocytosis.

Literature

Kooijman, E.E.,Chupin, V., de Kruif, B., Burger, N.J. 2003: Modulation of membrane cutvature by phosphatidic acid and lyso phosphatidic acid. *Traffic*, 4:162-174.

McMahon, H.T, Gallop, J.L. 2005: Membrane curvature and mechanisms of dynamic cell membrane remodeling. *Nature*, 438:590-596.

Thematic area: Edible and medicinal fungi

SAPROTROPHIC AND MYCORRHIZAL WILD EDIBLE MUSHROOMS FROM PORTUGUESE MYCOFLORA AS A SOURCE OF NUTRIENTS AND NUTRACEUTICALS

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Keywords: edible and medicinal fungi, saprotrophic, mycorrhizal, nutrients, nutraceuticals

Consumption of wild growing mushrooms has been preferred to eating of cultivated fungi in many countries of central and Eastern Europe. Nevertheless, the knowledge of the nutritional value of wild growing mushrooms is limited. The present study reports the effects of trophism on mushrooms nutritional and nutraceutical potential.

In vitro antioxidant properties of five saprotrophic (*Calvatia utriformis, Clitopilus prunulus, Lycoperdon echinatum, Lyophyllum decastes*, and *Macrolepiota excoriata*) and five mycorrhizal (*Boletus erythropus, Boletus fragrans, Hygrophorus pustulatus, Russula cyanoxantha*, and *Russula olivacea*) wild edible mushrooms were accessed and compared to individual compounds identified by chromatographic techniques. Mycorrhizal species

revealed higher sugar concentration (16–42 g/100 g dw) than the saprotrophic mushrooms (0.4–15 g/100 g). Furthermore, fructose was found only in mycorrhizal species (0.2–2 g/100 g). The saprotrophic *L. decastes*, and the mycorrhizal species *B. erythropus* and *B. fragrans* gave the highest antioxidant potential, mainly due to the contribution of polar antioxidants such as phenolics and sugars. The bioactive compounds found in wild mushrooms give scientific evidence to traditional edible and medicinal uses of these species.

Literature

Grangeia, C., Sandrina A. Heleno , Lillian Barros, Anabela Martins, Isabel C.F.R. Ferreira 2011: Effects of trophism on nutritional and nutraceutical potential of wild edible mushrooms. *Food Research International,* 44:1029–1035.

Heleno, S. A., Barros, L., Sousa, M. J., Martins, A., & Ferreira, I. C. F. R. 2009: Study and characterization of selected nutrients in wild mushrooms from Portugal by gas chromatography and high performance liquid chromatography. *Microchemical Journal,* 93:195–199.

Heleno, S. A., Barros, L., Sousa, M. J., Martins, A., & Ferreira, I. C. F. R. 2010: Tocopherols composition of Portuguese wild mushrooms with antioxidant capacity. *Food Chemistry,* 119:1443–1450.

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LOCALIZATION OF THE PHENOLIC COMPOUNDS ON THE SURFACE OF MICELLE CELLS OF *LENTINULA EDODES* (BERK) PEGLER CULTIVATED WITHOUT OR WITH 20 PPM OF Na_2SeO_3 ADDED TO THE MEDIA.

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Keywords: edible and medicinal fungi, *Lentinula edodes*, mycelial culture, poliphenolics, fungal biotechnology

Localization and quantitative and qualitative analysis of the phenolic compounds in mycelial cultures of *Lentinula edodes* cultivated in liquid medium was examined. We were interested in smaller phenolics because they were located both on the surface and inside plant cells under stress conditions and their quality and quantity were different (Zobel and Brown

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Tuesday, September 20

Plenary Session

08:30-09:00	Meliton Hall (middle floor)	Keynote Speaker: **Dr. Christine Rogers** *Outdoor Airspora: Patterns, Prevalence & Impacts*
09:00-10:00	Meliton Hall (middle floor)	**Discussion**
10:00-10:20	Meliton Hall (middle floor)	**Coffee Break**
10:30-13:00	Meliton Hall (middle floor)	**Parallel Thematic Sessions in 3 Rooms**

Thematic Area: Aeromycology

Moderator: E. Kapsanaki-Gotsi

10:30-10:45	CHLOE (Room I)	An assessment of airborne fungi in museum premises. **Eva Kapsanaki-Gotsi, A. Zervas, A. Patra and M. Koumbourou**
10:45-11:00	CHLOE (Room I)	Aerobiological monitoring of fungi in a newly built haematology/oncology paediatric hospital. **A. Velegraki, K. Xerakia, A. Charissiadou, V. Konte, A. Milioni, S. Kritikou, Ch. Rhodaki, A. Stathi, A. Pangalis**
11:00-11:15	CHLOE (Room I)	Effect of dust storms on concentration and content of fungi in the atmosphere of Haifa, Israel. **Isabella Grishkan, P. Schlesinger, Y. Mamane**
11:15-11:30	CHLOE (Room I)	Diversity of airborne fungi in Athens and annual variation associated with meteorological factors. **Ioanna Pyrri, E. Kapsanaki-Gotsi**
11:30-11:45	CHLOE (Room I)	Fugal aerobiology, spore morphology and genetics: a triple-fusion challenge for mid-term biosecurity **M.E. Kambouris and A. Velegraki**
11:45-12:00	CHLOE (Room I)	Airborne opportunistic microfungi in outdoor urban environments. **Olga E. Marfenina, N.V. Makarova, A.E. Ivanova, A.A. Danilogorskaja**
12:00-12:15	CHLOE (Room I)	The level and species of moulds in indoor air of daycare centers in Korea. **Seong H. Kim, G.R. Ahn**
12:15-12:30	CHLOE (Room I)	Identification of *Lichtheimia*, a causative agent of emerging Mucormycoses **W. Schrödl, T. Heydel, V.U. Schwartze,K. Hoffmann, G. Walther, A. Alastruey-Izquierdo, J.L. Rodriguez-Tudela, P. Olias, I.D. Jacobsen,G. Sybren de Hoog, Kerstin Voigt**
12:30-13:00	CHLOE (Room I)	**Discussion**
13:00-14:00		**Lunch Break**
14:00-15:00		**Poster Session**

Symposium: Insect-fungus associations

Moderator: Dr. Dmitri Shigel

15:00-15:15	CHLOE (Room I)	Introduction **Dmitri Shigel**
15:15-15:30	CHLOE (Room I)	Fungal hosts of fungus gnats (Diptera: Sciaroidea) in Europe **Jevgeni Jakovlev**

15:30-15:45	THALIA (Room II)	The ectomycorrhizal fungi in a forest chronosequence of European larch (Larix decidua) **Tomasz Leski, M. Rudawska**
15:45-16:00	THALIA (Room II)	Influence of mycorrhizal symbiosis in antioxidant potential of fungi and seedlings **F.S. Reis, I.C.F.R. Ferreira, L. Barros, C. Santos-Buelga, Anabela Martins**
16:00-16:15	THALIA (Room II)	Can ectomycorrhizal fungi be cheaters? **Reinhard Agerer**
16:15-16:30	THALIA (Room II)	Study of dark septate endophytic fungi colonizing invasive and indigenous plants on semiarid sandy areas. **Daniel G. Knapp, A. Pintye, G.M. Kovács**
16:30-16:50		
17:00-17:15	THALIA (Room II)	Does host evolution shape alder-associated ectomycorrhizal fungi communities? **Monique Gardes, J. Rochet, S. Manzi, H. Gryta, P. Jargeat, P.A. Moreau,M. Roy**
17:15-17:30	THALIA (Room II)	Unravelling an enigma: ecology of waxcaps (*Hygrocybe*: Agaricomycetes)**Patricia Silva-Flores, R. Agerer**
17:30-18:30	THALIA (Room II)	**Discussion**

Thematic Area: Fungal distribution and diversity

Moderators: Dr. Zapi Gonou

10:30-10:45	ERATO (Room III)	Diversity of soil microbial communities along climatic altitudinal gradients **Aurore Coince, M. Buée, B. Marçais**
10:45-11:00	ERATO (Room III)	Size matters not: some minute yet interesting ascomycetes from the mountainous region of Agrapha, Central Greece **Panos Delivorias, Z. Gonou-Zagou, E. Kapsanaki-Gotsi**
11:00-11:15	ERATO (Room III)	Contribution of metagenome pyrosequencing of soil fungi to nature conservation: a case study from sand dune communities in the Netherlands **József Geml, M.E. Noordeloos**
11:15-11:30	ERATO (Room III)	Macrofungi of *Abies cilicica* and *Abies borisii regis* in Turkey and Central Balkans **Hasan Hüseyin Doğan, M. Karadelev, K. Rusevska**
11:30-11:45	ERATO (Room III)	Ecological features of *Tricholoma anatolicum* in Turkey **Hasan Hüseyin Doğan, I. Akata**
11:45-12:00	ERATO (Room III)	The impact of earthworms on microscopic fungi **Alexander V. Kurakov, S.A. Kharin**
12:00-12:15	ERATO (Room III)	Geoglossoid fungi in Slovakia **V. Kučera, Pavel Lizoň**
12:15-12:30	ERATO (Room III)	Molecular biogeography of arbuscular mycorrhizal fungi **Maarja Öpik**
12:30-13:00	ERATO (Room III)	**Discussion**
13:00-14:00		**Lunch Break**
14:00-15:00		**Poster Session**

Moderator: Prof. Lynne Boddy

15:00-15:15	ERATO (Room III)	Diversity of wood-inhabiting Basidiomycota in Leivaditis area (Thrace, Greece) **Athanasia Sergentani, Z. Gonou-Zagou, D.G. Hatzinikolaou, E. Kapsanaki-Gotsi**
15:15-15:30	ERATO (Room III)	A reappraisal of existing knowledge on the diversity of the genus *Lactarius* Pers. in Greece **Marina Triantafyllou, E. Polemis, D.M. Dimou, Z. Gonou-Zagou, P. Delivorias, G.I. Zervakis**
15:30-15:45	ERATO (Room III)	Studies on Myxobiota of Canakkale (Turkey) and its environment **Tülay Bican Süerdem, B. Dülger**
15:45-16:00	ERATO (Room III)	Determining rarity of fungi **Branislav Uzelac**
16:00-16:15	ERATO (Room III)	Morphology and ecology *of Rhizophydium mammilatum* – a parasitic chytrid fungus. Isolation and cultivation methods **M.A. Mamkaeva**
16:15-16:30	ERATO (Room III)	The distribution of some macromycetes in Europe (ECCF Mapping programme) **Andre Fraiture**
16:30-16:50		**Afternoon Refreshments**