

List of the most important scientific achievements for 2013

Life Sciences

UKOPRBAN - Department of Anthropology
UKOPRBBO - Department of Botany
UKOPRBEK - Department of Ecology
UKOPRBFR - Department of Plant Physiology
UKOPRBGE - Department of Genetics
UKOPRBMB - Department of Molecular Biology
UKOPRBMV - Department of Microbiology and Virology
UKOPRBZF - Department of Animal Physiology and Ethology
UKOPRBZO - Department of Zoology

Stuchlík, Stanislav [UKOPRBMB] (50%) - Turňa, Ján [UKOPRBMB] (50%) : Current status of biotechnology in Slovakia

Lit.: 1 záz.

In: Current Opinion in Biotechnology. - Vol. 24, Suppl. 1 (2013), s. S14-S18

Indikátor časopisu:

IF (JCR) **2013=8,035**

Kováčiková, Ines [UKOPR000] (75%) - Poláková, Silvia (2%) - Benko, Zsigmond (2%) - Čipák, Ľuboš (2%) - Zhang, Lijuan (2%) - Rumpf, Cornelia (2%) - Miadoková, Eva (2%) - Gregáň, Juraj [UKOPRBGE] (13%) : A knockout screen for protein kinases required for the proper meiotic segregation of chromosomes in the fission yeast *Schizosaccharomyces pombe*

Lit.: 76 záz., 5 obr.

In: Cell Cycle. - Vol. 12, No. 4 (2013), s. 618-624

Indikátor časopisu:

IF (JCR) **2013=5,006**

Gaplovská-Kyselá, Katarína (50%) - Ševčovičová, Andrea [UKOPRBGE] (50%) : Phosphorylation: A key regulator of meiosis

Lit.: 9 záz.

In: Cell Cycle. - Vol. 12, No. 5 (2013), s. 716

Indikátor časopisu:

IF (JCR) **2013=5,006**

Čipák, Ľuboš (15%) - Gupta, Sneha (15%) - Rajovic, Iva (5%) - Jin, Quan-Wen (5%) - Anrather, Dorothea (5%) - Ammerer, Gustav (5%) - McCollum, Dannel (25%) - Gregáň, Juraj [UKOPRBGE] (25%) : Crosstalk between casein kinase II and Ste20-related kinase Nak1

Lit.: 40 záz., 2 obr.

In: Cell Cycle. - Vol. 12, No. 6 (2013), s. 884-888

Indikátor časopisu:

IF (JCR) **2013=5,006**

Hui, Hua (25%) - Namdar, Mandana (20%) - Ganier, Olivier (10%) - Gregáň, Juraj [UKOPRBGE] (10%) - Méchali, Marcel (10%) - Kearsy, Stephen E. (25%) : Sequential steps in DNA replication are inhibited to ensure reduction of ploidy in meiosis

Lit.: 73 záz., 6 obr.

In: Molecular Biology of the Cell. - Vol. 24, No. 5 (2013), s. 578-587

Indikátor časopisu:

IF (JCR) **2013=4,548**

Rebala, Krzysztof (10%) - Martínez-Cruz, Begoña (10%) - Tönjes, Anke (10%) - Kovács, Peter (10%) - Stumvoll, Michael (10%) - Lindner, Iris (10%) - Büttner, Andreas (10%) - Wichmann, H-Erich (5%) - Siváková, Daniela [UKOPRBAN] (5%) - Soták, Miroslav (5%) - Quintana-Murci, Lluís (5%) - Szczerkowska, Zofia (5%) - Comas, David (5%) : Contemporary paternal genetic landscape of Polish and German populations: from early medieval Slavic expansion to post-World War II resettlements

Lit.: 45 záz. , 3 obr. , 2 tab.

In: European Journal of Human Genetics. - Vol. 21, No. 4 (2013), s. 415-422

Indikátor časopisu:

IF (JCR) **2013=4,225**

Gvoždík, Václav (12%) - Benkovský, Norbert (12%) - Crottini, Angelica (12%) - Bellati, Adriana (12%) - Moravec, Jiří (12%) - Romano, Antonio (12%) - Sacchi, Roberto (12%) - Jandzík, Dávid [UKOPRBZO] (16%) : An ancient lineage of slow worms, genus *Anguis* (Squamata: Anguillidae), survived in the Italian Peninsula

Lit.: 73 záz. , 7 obr. , 5 tab.

In: Molecular Phylogenetics and Evolution. - Vol. 69, No. 3 (2013), s. 1077-1092

Indikátor časopisu:

IF (JCR) **2013=4,018**

Konlechner, Cornelia (30%) - Turktas, Mine (10%) - Langer, Ingrid (10%) - Vaculík, Marek [UKOPRBFR] (10%) - Wenzel, Walter W. (10%) - Puschenreiter, Markus (10%) - Hauser, Marie-Theres (20%) : Expression of zinc and cadmium responsive genes in leaves of willow (*Salix caprea* L.) genotypes with different accumulation characteristics

Lit.: 63 záz. , 4 obr. , 3 tab.

In: Environmental Pollution. - Vol. 178 (2013), s. 121-127

Indikátor časopisu:

IF (JCR) **2013=3,902**

Plečeniková, Andrea [UKOPR000] (40%) - Mages, Wolfgang (10%) - Andrésón, Olafur Sigmar (10%) - Hroššová, Dominika (4%) - Valuchová, Soňa (4%) - Vlček, Daniel (2%) - Slaninová, Miroslava [UKOPRBGE] (30%) : Studies on Recombination Processes in two *Chlamydomonas reinhardtii* Endogenous Genes, NIT1 and ARG7

Lit.: 55 záz. , 4 obr. , 1 tab.

In: Protist. - Vol. 164, No. 4 (2013), s. 570-582

Indikátor časopisu:

IF (JCR) **2013=3,558**

Durdiaková, Jaroslava [UKOLFFYU] (60%) - Lakatošová, Silvia [UKOLFFYU] (5%) - Kubranská, Aneta (5%) - Laznibatová, Jolana (5%) - Ficek, Andrej [UKOPRBMB] (5%) - Ostatníková, Daniela [UKOLFFYU] (10%) - Celec, Peter [UKOLFUMB] (10%) : Mental rotation in intellectually gifted boys is affected by the androgen receptor CAG repeat polymorphism

Lit.: 54 záz.

In: Neuropsychologia. - Vol. 51, No. 9 (2013), s. 1693-1698

Indikátor časopisu:

IF (JCR) **2013=3,451**

Lukáč, Miloš [UKOFACH] (37%) - Mrva, Martin [UKOPRBZO] (8%) - Garajová, Mária [UKOPRBZO] (8%) - Mojžišová, Gabriela (7%) - Varinska, Lenka (7%) - Mojžiš, Ján (6%) - Sabol, Marián (8%) - Kubincová, Janka [UKOFACH] (5%) - Haragová, Hana (2%) - Ondriška, František (4%) - Devínsky, Ferdinand [UKOFACH] (8%) : Synthesis, self-aggregation and biological properties of alkylphosphocholine and alkylphosphohomocholine derivatives of cetyltrimethylammonium bromide, cetylpyridinium bromide, benzalkoniumbromide (C16) and benzethonium chloride

Lit.: 60 záz. , 8 obr. , 2 tab.

In: European Journal of Medicinal Chemistry. - Vol. 66 (2013), s. 46-55

Indikátor časopisu:

IF (JCR) **2013=3,432**

Michalko, Jaroslav (50%) - Socha, Peter (10%) - Mészáros, Patrik (10%) - Blehová, Alžbeta [UKOPRBFR] (10%) - Libantová, Jana (5%) - Moravčíková, Jana (5%) - Matušíková, Ildikó (10%) : Glucan-rich diet is digested and taken up by the carnivorous sundew (*Drosera rotundifolia* L.): implication for a novel role of plant beta-1,3-glucanases
Lit.: 64 zázň., 6 obr.
In: *Planta*. - Vol. 238, No. 4 (2013), s. 715-725
Indikátor časopisu:
IF (JCR) **2013=3,376**

Radvánszky, Ján (40%) - Surový, Milan [UKOPRBMB] (20%) - Polák, Emil [UKOPR000] (20%) - Kádaši, Ľudevít [UKOPRBMB] (20%) : Uninterrupted CCTG tracts in the myotonic dystrophy type 2 associated locus
Lit.: 30 zázň., 2 obr., 1 tab.
In: *Neuromuscular Disorders*. - Vol. 23, No. 7 (2013), s. 591-598
Indikátor časopisu:
IF (JCR) **2013=3,134**

Repiská, Gabriela [UKOLFUMB] (20%) - Sedláčková, Tatiana [UKOLFUMB] (20%) - Szemes, Tomáš [UKOPRBMB] (20%) - Celec, Peter [UKOLFUMB] (20%) - Minárik, Gabriel [UKOLFUMB] (20%) : Selection of the optimal manual method of cell free fetal DNA isolation from maternal plasma
Lit.: 18 zázň.
In: *Clinical Chemistry and Laboratory Medicine*. - Vol. 51, No. 6 (2013), s. 1185-1189
Indikátor časopisu:
IF (JCR) **2013=2,955**

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ADC Vedecké práce v zahraničných karentovaných časopisoch

ADC63 Worley, Kim C. - Warren, Wesley C. - Rogers, Jeffrey - Locke, Devin - Muzny, Donna M. - Brejová, Brona - Tomáška, Ľubomír [UKOPRBGE] - Vinař, Tomáš : The common marmoset genome provides insight into primate biology and evolution
Lit.: 50 zázň., 4 obr., 1 tab.

In: Nature Genetics. - Vol. 46, No. 8 (2014), s. 850-857

Indikátor časopisu:

IF (JCR) 2014= [2013-29,648]

Franz Lang, B. (15%) - Jakúbková, Michaela [UKOPR000] (10%) - Hegedüsová, Eva [UKOPRCBI] (10%) - Daoud, Rachid (5%) - Forget, Lise (5%) - Brejová, Bronislava [UKOMFKI] (5%) - Vinař, Tomáš [UKOMFKAI] (5%) - Kosa, Peter (5%) - Fričová, Dominika (5%) - Neboháčová, Martina [UKOPRCBI] (5%) - Griač, Peter (5%) - Tomáška, Lubomír [UKOPRBGE] (5%) - Burger, Gertraud (5%) - Nosek, Jozef [UKOPRCBI] (15%) : Massive programmed translational jumping in mitochondria

Lit.: 43 záz., 3 obr., 1 tab.

In: Proceedings of the National Academy of Sciences of the United States of America. - Vol. 111, No. 16 (2014), s. 5926-5931

Indikátor časopisu:

IF (JCR) 2014= [2013-9,809]

Hyppa, Randy W. (30%) - Fowler, Kyle R. (5%) - Čipák, Ľuboš (5%) - Gregáň, Juraj [UKOPRBGE] (30%) - Smith, Gerald R. (30%) : DNA intermediates of meiotic recombination in synchronous *S. pombe* at optimal temperature

Lit.: 45 záz., 6 obr., 2 tab.

In: Nucleic Acids Research. - Vol. 42, No. 1 (2014), s. 359-369

Indikátor časopisu:

IF (JCR) 2014= [2013-8,808]

Vilizzi, Lorenzo (50%) - Kováč, Vladimír [UKOPRBEK] (50%) : Alternative ontogenies and developmental plasticity: implications for ecological and evolutionary studies on species complexes

Lit.: 58 záz., 1 tab.

In: Fish and Fisheries. - Vol. 15, No. 3 (2014), s. 523-531

Indikátor časopisu:

IF (JCR) 2014= [2013-8,755]

Čipák, Ľuboš (25%) - Poláková, Silvia (25%) - Hyppa, Randy W. (10%) - Smith, Gerald R. (20%) - Gregáň, Juraj [UKOPRBGE] (20%) : Synchronized fission yeast meiosis using an ATP analog-sensitive Pat1 protein kinase

Lit.: 47 záz., 3 obr., 1 tab.

In: Nature Protocols. - Vol. 9, No. 1 (2014), s. 223-231

Indikátor časopisu:

IF (JCR) 2014= [2013-7,782]

Jandžík, Dávid [UKOPRBZO] (17%) - Hawkins, M. Brent (17%) - Cattell, Maria V. (17%) - Černý, Robert (17%) - Square, Tyler A. (16%) - Medeiros, Daniel M. (16%) : Roles for FGF in lamprey pharyngeal pouch formation and skeletogenesis highlightancestral functions in the vertebrate head

Lit.: 65 záz., 9 obr.

In: Development. - Vol. 141, No. 3 (2014), s. 629-638

Indikátor časopisu:

IF (JCR) 2014= [2013-6,273]

Ballantyne, Kaye N. - Ralf, Arwin - Aboukhalid, Rachid - Achakzai, Niaz M. - Anjos, Maria J. - Siváková, Daniela [UKOPRBAN] : Toward Male Individualization with Rapidly Mutating Y-Chromosomal Short Tandem Repeats

Lit.: 34 záz., 5 obr., 4 tab.

In: Human Mutation. - Vol. 35, No. 8 (2014), s. 1021-1032

Indikátor časopisu:

IF (JCR) 2014= [2013-5,122]

Nosek, Jozef [UKOPRCBI] (80%) - Tomáška, Lubomír [UKOPRBGE] (20%) : Timing of meiosis: Microtubules on the move

Lit.: 6 záz. n.
In: Cell Cycle. - Vol. 13, No. 1 (2014), s. 13
Indikátor časopisu:
IF (JCR) 2014= [2013-5,006]

Poláková, Silvia (40%) - Benko, Zsigmond (10%) - Zhang, Lijuan (10%) - Gregáň, Juraj [UKOPRBGE] (40%) :
Mal3, the Schizosaccharomyces pombe homolog of EB1, is required for karyogamy and for promoting
oscillatory nuclear movement during meiosis
Lit.: 36 záz. n., 4 obr., 2 tab.
In: Cell Cycle. - Vol. 13, No. 1 (2014), s. 72-77
Indikátor časopisu:
IF (JCR) 2014= [2013-5,006]

Gerhold, Joachim M. (30%) - Sedman, Tiina (5%) - Višacká, Katarína [UKOPRBGE] (30%) - Slezáková, Judita
(5%) - Tomáška, Lubomír [UKOPRBGE] (5%) - Nosek, Jozef [UKOPRCBI] (20%) - Sedman, Juhán (5%) :
Replication Intermediates of the Linear Mitochondrial DNA of Candida parapsilosis Suggest a Common
Recombination Based Mechanism for Yeast Mitochondria
Lit.: 65 záz. n., 6 obr.
In: Journal of Biological Chemistry. - Vol. 289, No. 33 (2014), s. 22659-22670
Indikátor časopisu:
IF (JCR) 2014= [2013-4,600]

Shazib, Shahed Uddin Ahmed (40%) - Vďačný, Peter [UKOPRBZO] (40%) - Kim, Ji Hye (10%) - Jang, Seok Won
(5%) - Shin, Mann Kyoon (5%) : Phylogenetic relationships of the ciliate class Heterotrichea (Protista,
Ciliophora, Postciliodesmatophora) inferred from multiple molecular markers and multifaceted analysis
strategy
Lit.: 72 záz. n., 9 obr., 5 tab.
In: Molecular Phylogenetics and Evolution. - Vol. 78, September (2014), s. 118-135
Indikátor časopisu:
IF (JCR) 2014= [2013-4,018]

Vďačný, Peter [UKOPRBZO] (74%) - Breiner, Hans-Werner (5%) - Yashchenko, Varvara (5%) - Dunthorn, Micah
(1%) - Stoeck, Thorsten (5%) - Foissner, Wilhelm (10%) : The Chaos Prevails: Molecular Phylogeny of the
Haptoria (Ciliophora, Litostomatea)
Lit.: 54 záz. n., 8 obr., 3 tab.
In: Protist. - Vol. 165, No. 1 (2014), s. 93-111
Indikátor časopisu:
IF (JCR) 2014= [2013-3,558]

Mikulíček, Peter [UKOPRBZO] (60%) - Kautman, Matej (10%) - Demovič, Boris (10%) - Janko, K. (20%) : When
a clonal genome finds its way back to a sexual species: evidence from ongoing but rare introgression in the
hybridogenetic water frog complex
Lit.: 94 záz. n., 4 obr., 3 tab.
In: Journal of Evolutionary Biology. - Vol. 27, No. 3 (2014), s. 628-642
Indikátor časopisu:
IF (JCR) 2014= [2013-3,483]

Záhonová, Kristína (30%) - Hadariová, Lucia [UKOPRBGE] (10%) - Vacula, Rostislav (10%) - Yurchenko,
Vyacheslav (10%) - Eliáš, Marek (10%) - Krajčovič, Juraj [UKOPRBGE] (10%) - Vesteg, Matej
[UKOPRBGE] (20%) : A small portion of plastid transcripts polyadenylated in the flagellate Euglena
gracilis
Lit.: 38 záz. n., 3 obr.
In: FEBS Letters. - Vol. 588, No. 5 (2014), s. 783-788
Indikátor časopisu:
IF (JCR) 2014= [2013-3,341]

- Pavlovič, Andrej [UKOPR000] (40%) - Krausko, Miroslav (40%) - Libiaková, Michaela [UKOPRBFR] (10%) - Adamec, Lubomír (10%) : Feeding on prey increases photosynthetic efficiency in the carnivorous sundew *Drosera capensis*
 Lit.: 72 zázň., 5 obr., 5 tab.
 In: *Annals of Botany*. - Vol. 113, No. 1 (2014), s. 69-78
Indikátor časopisu:
 IF (JCR) 2014= [2013-3,295]
- Bakkaiová, Jana [UKOPRBGE] (50%) - Arata, Kosuke (2%) - Matsunobu, Miki (2%) - Ono, Bungo (2%) - Aoki, Tomoyo (2%) - Lajdová, Dana [UKOPRBGE] (5%) - Neboháčová, Martina [UKOPRCBI] (5%) - Nosek, Jozef [UKOPRCBI] (8%) - Miyakawa, Isamu (8%) - Tomáška, Lubomír [UKOPRBGE] (16%) : The Strictly Aerobic Yeast *Yarrowia lipolytica* Tolerates Loss of a Mitochondrial DNA-Packaging Protein
 Lit.: 94 zázň., 5 obr.
 In: *Eukaryotic Cell*. - Vol. 13, No. 9 (2014), s. 1143-1157
Indikátor časopisu:
 IF (JCR) 2014= [2013-3,179]
- Mišík, Miroslav (15%) - Burke, Ian T. (15%) - Reismüller, Matthias (12%) - Pichler, Clemens (12%) - Rainer, Bernhard (12%) - Mišiková, Katarína [UKOPRBBO] (10%) - Mayes, William M. (12%) - Knasmüller, Siegfried (12%) : Red mud a byproduct of aluminum production contains soluble vanadium that causes genotoxic and cytotoxic effects in higher plants
 Lit.: 45 zázň., 4 obr., 4 tab.
 In: *Science of the Total Environment*. - Vol. 493 (2014), s. 883-890
Indikátor časopisu:
 IF (JCR) 2014= [2013-3,163]
- Horváthová, Eva (12%) - Navarová, Jana (11%) - Gálová, Eliška [UKOPRBGE] (11%) - Ševčovičová, Andrea [UKOPRBGE] (11%) - Chodáková, Lenka (11%) - Sňahničánová, Zuzana (11%) - Melušová, Martina (11%) - Kozics, Katarína (11%) - Slameňová, Darina (11%) : Assessment of Antioxidative, Chelating, and DNA-Protective Effects of Selected Essential Oil Components (Eugenol, Carvacrol, Thymol, Borneol, Eucalyptol) of Plants and Intact *Rosmarinus officinalis* Oil
 Lit.: 52 zázň., 6 obr.
 In: *Journal of Agricultural and Food Chemistry*. - Vol. 62, No. 28 (2014), s. 6632-6639
Indikátor časopisu:
 IF (JCR) 2014= [2013-3,107]