PERSONAL DATA

Attila Hunyadi, Ph.D.
Associate professor
Institute of Pharmacognosy
University of Szeged, Hungary

Date and place of birth: 11.06.1977, Kiskunhalas, Hungary
Nationality: Hungarian
E-mail: hunyadi.a@pharm.u-szeged.hu

DEGREE

2015. **Dr. Habil.**
2012. **Specialist** in pharmacognosy-phytotherapy
2007. **PhD** in pharmacognosy (*summa cum laude*).
Title of thesis: *Serratula wolffii*, as a promising source of ecdysteroids
2001. **PharmD**
Title of thesis: Antioxidant effect of *Serratula* species, active constituents of *Serratula coronata* L. (in Hungarian)

RESEARCH AND PROFESSIONAL EXPERIENCE

National

2016- :	Associate professor	(current workplace)
2013-2016.	Assistant professor	(current workplace)
2010- :	Group leader	(current workplace)
2005-2013:	Assistant lecturer	(current workplace)

International (total ca. 17 months)

Kaohsiung Medical University (KMU), Kaohsiung, Taiwan	2017. Dec. (2w)	PhD committee member
KMU, Kaohsiung, Taiwan	2017. May (9d)	Invited lecturer & visiting scientist
KMU, Kaohsiung, Taiwan	2016. Nov. (7d)	Invited lecturer & visiting scientist
KMU, Kaohsiung, Taiwan	2015. Dec. (6d)	Invited lecturer & visiting scientist
Univ. de Limoges, Limoges, France	2016. May (5d)	Visiting scientist
KMU, Kaohsiung, Taiwan	2015. Dec. (6d)	Invited lecturer
KMU, Kaohsiung, Taiwan	2015. May (10d)	PhD committee member
KMU, Kaohsiung, Taiwan	2014. May (10d)	Invited lecturer & PhD committee member
Institut de Chimie, Nice, France	2013. Oct. (1w)	Visiting scientist
KMU, Kaohsiung, Taiwan	2013. July-Aug. (1m)	Invited lecturer & visiting scientist
NIFLRP, Bucharest, Romania	2012. Jan. (10d)	Visiting scientist
NIFLRP, Bucharest, Romania	2011. Nov. (2 w)	Visiting scientist
KMU, Kaohsiung, Taiwan	2010. Oct-Nov. (3w)	Visiting scientist
KMU, Kaohsiung, Taiwan	2008-2009. (12m)	Research fellow

Training school

Software Tools in Chemical Biology (Aalto University, Espoo, Finland) 22-25.04.2013.

R&D PROJECTS AS PRINCIPAL INVESTIGATOR

2020-2024. NKFIH K-134704; Antioxidant-inspired drug discovery: extension of chemical space towards new blood-brain barrier protective agents **48.0 M HUF**
2019-2021. Ministry of Human Capacities, Hungary 20391-3/2018/FEKUSTRAT: Chemical approaches targeting multi-drug resistant cancer. **22.67 M HUF**

2019-2021. NKFIH TÉT-PT; Design and synthesis of hybrid molecules with enhanced antitumor activity **2.0 M HUF**

2016-2020. NKFIH K-119770; Antioxidants as oxidative stress activated prodrugs: antitumor potential of an overlooked chemical space **47.89 M HUF**

2014. "Internal Momentum" grant of the University of Szeged: New chemical approaches against MDR cancer **2.0 M HUF**

2009-2013. OTKA PD-75383; Isolation of antidiabetic constituents from the leaves of *Morus alba* L. **9.75 M HUF**

2009-2011. EEA and Norway Grants – 104/2009. Synthesis of protoapigenone derivatives and further, potentially pro-apoptotic flavonoids **7.25 M HUF**

FELLOWSHIPS

2016-2019 (3 years) János Bolyai research fellowship

2009-2011 (19 months) Zoltán Magyary reintegration grant

2008-2009 (12 months) Postdoctoral fellowship of the National Science Council, Taiwan; Graduate Institute of Natural Products, KMU, Kaohsiung, Taiwan

EDITORIAL ACTIVITIES

Editorial Board membership

2014- Evidence-Based Complementary and Alternative Medicine (Hindawi; IF=2.629)

Topic Editor

2020- Antioxidants (MDPI; IF=6.312)

Guest Editor

2014. Molecules (MDPI; IF=2.095), Special issue: "Bioactivity-focused Semi-synthesis in Drug Discovery"

REVIEWER FOR

Nat Prod J (2011-), J Med Food (2013-), Molecules (2012-), Plant Foods Hum Nutr (2014-), Drug Metab Lett (2012-), Eur J Med Chem (2014-), J Nat Med (2013-), Steroids (2014-), Acta Physiol Hungarica (2015-), Chem Res Toxicol (2015-), J Med Chem (2015-), Org Lett (2016-). ChemMedChem (2017-), J Pharm Biomed Anal (2017-), Sci Rep (2017-)

INTERNATIONAL INVITED LECTURES

17.10.2017. *Ecdysteroids: ecological significance and potential biomedical use* (University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic)

16.10.2017. *Natural product research in the Institute of Pharmacognosy, University of Szeged, Hungary* University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic)

05.09.2017. *Ecdysteroids: from insect molting hormones to potent chemo-sensitizers in cancer. 65th Annual Meeting of the Society for medicinal Plant and Natural Product Research, Basel, Switzerland, 3-7. Sept.*

26.05.2017. *Preparative chromatography in the isolation of natural products* (KMU, Kaohsiung, Taiwan)

25.05.2017. *Recent developments in the chemistry and bioactivity of ecdysteroids* (KMU, Kaohsiung, Taiwan)

2016.11.03. *Oxidized antioxidant metabolites: a treasury of bioactive natural products*. KMU, Kaohsiung, Taiwan

19.05.2016. *Antioxidants as oxidative stress activated pro-drugs: a chemical treasury under the carpet.* University of Limoges, Limoges, France

09.12.2015. Antioxidants as oxidative stress activated pro-drugs: the case of apigenin. *Scientific meeting on natural products,* KMU, Kaohsiung, Taiwan.

08.10.2014. *Semi- and total-synthetic protoflavone derivatives as MDR selective anticancer agents*. 9th International Conference of Anticancer Research, 06-10.10.2014, Sithonia, Greece, *Anticancer Res* **2014**, 34, Paper 268.
27.05.2014. *Targeting multi-drug resistant cancer: new insights on the use of ecdysteroid and protoflavone derivatives* (KMU, Kaohsiung, Taiwan)
17.07.2013. *Tips and tricks in chromatography* (KMU, Kaohsiung, Taiwan)
16.07.2013. *Protoflavones: chemistry and bioactivity* (KMU, Kaohsiung, Taiwan)
15.07.2013. *Ecdysteroids - from insect hormones to the secret of Popeye* (KMU, Kaohsiung, Taiwan)
16.01.2012. *Chromatography: theory and practice* (NIFLPR, Bucharest, Romania)

AWARDS

2018. Géza Zemplén Award (outstanding achievements in organic chemistry)
2017. Egon Stahl Award-in-Silver (highest international prize of GA for young phytochemists)
2016. Kálmán Szász Prize (young scientist's achievements in natural product research)
2007. ANOLI Prize (research in pharmaceutical sciences)
2007. 1st Prize of the Hungarian Chemical Society (PhD dissertation)
2003. 2nd Prize of the Elsevier Ltd. (Poster presentation)
2001. István Novák Award (diploma thesis)
2000. Sándor Szekeres Award (oral presentation)

MEMBERSHIPS

2019-2023 COST Action CA18122 (European Cholangiocarcinoma Network)
2018-2022 COST Action CA17104 (New diagnostic and therapeutic tools against multidrug resistant tumors) management committee member
2017- Gesselschaft für die Arzneipflanzenforschung (GA), Board of Directors member
2016- Gesselschaft für die Arzneipflanzenforschung (GA)
2015-2019 COST Action CM1407 (Challenging organic syntheses inspired by nature - from natural products chemistry to drug discovery), management committee member
2013-2014 COST Action TD0905 (Epigenetics: Bench to Bedside), working group member
2012-2013 American Chemical Society
2012-2016 COST Action CM1106 (Chemical Approaches in Targeting Drug Resistance in Cancer Stem Cells); working group member
2011-2013 COST Action CM0804 (Chemical Biology with Natural Products); management committee member, the sole representative of Hungary
2011- External expert of the European Food and Safety Administration (EFSA)
2007- Hungarian Chemical Society
2007- Hungarian Society for Separation Sciences
2004- Phytochemical Society of Europe
2001- The Hungarian Society for Pharmaceutical Sciences

MENTORING STUDENTS & TEACHING EXPERIENCE

PhD supervising

1. József Csábi, PhD, 2017 *(summa cum laude)*
2. Meriem Issaadi, PhD, 2019 *(summa cum laude)*
3. Balázs Dankó, PhD, 2020 *(summa cum laude)*
4. Ahmed D. Latif, PhD, 2020 *(50%, summa cum laude)*
5. Zoofishan Zoofishan, PhD, 2020 *(summa cum laude)*
6. Máté Vágvölgyi, PhD, 2020 *(summa cum laude)*

Ongoing

1. Laura Fási, PharmD, 2015- *(graduation in process)*
2. Gábor Girst, MSc, 2018-
3. Orinamhe Agbadua, MSc, 2018-

4. Márton Háznagy, PharmD, 2019- (50%)

International PhD co-supervising

1. Wan-Chun Lai, PhD, graduated in 2014 (KMU-SZTE dual degree)
2. Yu-Chi Tsai, PhD, graduated in 2015 (KMU-SZTE dual degree)

MSc supervising

Ten Student Research Fellows (4 awards at local and national conferences), 13 PharmD theses (3 in process).

University Courses taught

2018- Pharmacognosy lecture for pharmacy students in English
2018- Separation techniques for MSc and PhD students in English and Hungarian
2007- "Illegal drugs from Nature" for pharmacy students
2006- Phytotherapy for pharmacy technicians
2005- Pharmacognosy laboratory practices in English
2002- Pharmacognosy laboratory practices in Hungarian

Scientific publications: 86 in SCI journals (IF_{2020}=276.272)
9 in Hungarian journals; 13 book chapters (in Hungarian)
Independent citations: 766; Hirsch index=17

For a complete list of publications, see the following LINK

INTERNATIONAL PEER-REVIEWED PUBLICATIONS

2021

1. Mernyák E, Bartha S, Kóczán L, Jójárt R, Resch V, Paragi G, Vágvölgyi M, **Hunyadi A**, Bruszel B, Zupkó I, Minorics R*. Microwave-assisted Phospha-Michael addition reactions in the 13α-oestrone series and in vitro antiproliferative properties. J *Enzyme Inhib Med Chem* 36:1, 1931-1937 (2021) **IF=5.051**
2. Ahmed SHH, Gonda T, **Hunyadi A***. Medicinal chemistry inspired by ginger: exploring the chemical space around 6-gingerol. *RSC Adv*, 11, 26687 (2021) **IF=3.361**
3. Tóth G*, Herke I, Gáti T, Vágvölgyi M, Berkecz R, Parfenova LV, Ueno M, Yokoi T, Nakagawa Y, **Hunyadi A***. A Commercial Extract of *Cyanotis arachnoidea* Roots as a Source of Unusual Ecdysteroid Derivatives with Insect Hormone Receptor Binding Activity. *J Nat Prod*, 84(7), 1870-1881 (2021) **IF=4.050**
4. Girst G, Ötvös SB, Fülöp F, Balogh GT*, **Hunyadi A***. Pharmacokinetics-driven evaluation of the antioxidant activity of curcuminoids and their major reduced metabolites – a medicinal chemistry approach. *Molecules*, 26(12), 3542 (2021) **IF=4.411**
5. Issaadi HM, Béni Z, Tóth T, Dékány M, Hsieh TJ, Balogh GT*, **Hunyadi A***. Diversity-oriented synthesis through gamma radiolysis: preparation of unusual ecdysteroid derivatives activating Akt and AMPK in skeletal muscle cells. *Bioorg Chem*, 112, 104951 (2021) **IF=5.275**
6. Savchenko RG, Nové M, Spengler G, **Hunyadi A***, Parfenova LV*. In Vitro Adjuvant Antitumor Activity of Various Classes of Semi-synthetic Poststerone Derivatives. *Bioorg Chem*, 106, 104485 (2021) **IF=5.275**

2020

7. Bús C, Kúsz N, Kincses A, Szemerédi N, Spengler G, Bakacsy L, Purger D, Berkecz Z, Hohmann J, **Hunyadi A***, Vasas A*. Antiproliferative Phenanthrenes from Juncus tenuis:

Isolation and Diversity-Oriented Semisynthetic Modification. *Molecules, 25*(24), 5983 (2020) **IF=4.411**

8. Fási L, Latif AD, Zupkó I, Lévai S, Dékány M, Béni Z, Könczöl Á, Balogh GT*, **Hunyadi A***. AAPH or Peroxynitrite-Induced Biorelevant Oxidation of Methyl Caffeate Yields Potent Antitumor Metabolite. *Biomolecules,* 10(11), 1537 (2020) **IF=4.879**
9. Bús C, Kulmány Á, Kúsz, N, Gonda T, Zupkó I, Mándi A, Kurtán T, Tóth B, Hohmann J, **Hunyadi A***, Vasas A*. Oxidised juncuenin B analogues with increased antiproliferative activity on human adherent cell lines: semisynthesis and biological evaluation. *J Nat Prod,* doi: 10.1021/acs.jnatprod.0c00499 **IF=4.050**
10. Csekes E, Vágvölgyi M, **Hunyadi A**, Račková L. Protoflavones in melanoma therapy: Prooxidant and pro-senescence effect of protoapigenone and its synthetic alkyl derivative in A375 cells. *Life Sci,* 260, 118419 (2020) **IF=5.037**
11. Hu HC, Li CY, Tsai YH, Yang DY, Wu YC, Hwang TL, Chen SL, Fülöp F, **Hunyadi A**, Yen CH, Cheng YB, Chang FR. *ACS Omega*, 5, 33, 20991–20999 (2020) **IF=3.512**
12. Vágvölgyi M, Bélteky P, Bogdán D, Nové M, Spengler G, Latif AD, Zupkó I, Gáti T, Tóth G, Kónya Z, **Hunyadi A***. Squalenoylated Nanoparticle Pro-Drugs of Adjuvant Antitumor 11α-Hydroxyecdysteroid 2,3-Acetonides Act as Cytoprotective Agents Against Doxorubicin and Paclitaxel..*Frontiers Pharmacol,* 11:552088 (2020) **IF=5.810**
13. Latif AD, Jernei T, Podolski-Renić A, Kuo CY, Vágvölgyi M, Girst G, Zupkó I, Develi S, Ulukaya E, Wang HC, Pešić M, Csámpai A*, **Hunyadi A***. Protoflavone-Chalcone Hybrids Exhibit Enhanced Antitumor Action Through Modulating Redox Balance, Depolarizing the Mitochondrial Membrane, and Inhibiting ATR-Dependent Signaling. *Antioxidants,* 9, 519 (2020) **IF=6.312**
14. Li CY, Chung YM, Wu YC, **Hunyadi A**, Wang CCC, Chang FR. Natural Products Development under Epigenetic Modulation in Fungi. *Phytochem Rev*, doi: 10.1007/s11101-020-09684-7 **IF=5.374**
15. Heger V, Benesova B, Viskupicova J, Majekova M, Zoofishan Z, **Hunyadi A**, Horakova L. Phenolic Compounds from *Morus nigra* Regulate Viability and Apoptosis of Pancreatic β-Cells Possibly via SERCA Activity. *ACS Med Chem Lett*, 11, 5, 1006-1013 (2020) **IF=4.345**
16. Keglevich A, Dányi L, Rieder A, Horváth D, Szigetvári Á, Dékány M, Szántay C Jr, Latif AD, **Hunyadi A**, Zupkó I, Keglevich P, Hazai L. Synthesis and Cytotoxic Activity of New Vindoline Derivatives Coupled to Natural and Synthetic Pharmacophores. *Molecules* 25(4) pii: E1010 (2020) **IF=4.411**
17. Tsai YC, Hohmann J, El-Shazly M, Chang LK, Dankó B, Kúsz N, Hsieh CT, **Hunyadi A***, Chang FR*. Bioactive constituents of Lindernia crustacea and its anti-EBV effect via Rta expression inhibition in the viral lytic cycle. *J Ethnopharmacol* 250:112493 (2020) **IF=4.360**

2019

18. Vágvölgyi M, Girst G, Kúsz N, Ötvös SB, Fülöp F, Hohmann J, Servais JY, Seguin-Devaux C, Chang FR, Chen MS, Chang LK, **Hunyadi A***. Less Cytotoxic Protoflavones as Antiviral Agents: Protoapigenone 1′-*O*-isopropyl ether Shows Improved Selectivity Against the Epstein–Barr Virus Lytic Cycle. *Int J Mol Sci*, 20, 6269 (2019) **IF=4.556**

19. Hornok S*, Csorba A, Kováts D, Csörgő T, **Hunyadi A***. Ecdysteroids are present in the blood of wild passerine birds. *Sci Rep*, 9: 17002 (2019) **IF=3.998**
20. Zoofishan Z, Kúsz N, Tóth G, Csorba A, Hajagos-Tóth J, Kothencz A, Gáspár R, **Hunyadi A***. Antispasmodic activity of prenylated phenolic compounds from the root bark of *Morus nigra*. *Molecules*, 24: 2497 (2019) **IF=3.267**
21. **Hunyadi A*.** The mechanism(s) of action of antioxidants: from scavenging reactive oxygen/nitrogen species to redox signaling and the generation of bioactive secondary metabolites. *Med Res Rev*, 39(6):2505-2533 (2019) **IF=9.300**
22. Latif AD, Gonda T, Vágvölgyi M, Kúsz N, Kulmány Á, Ocsovszki I, Zomborszki ZP, Zupkó I*, **Hunyadi A***. Synthesis and In Vitro Antitumor Activity of Naringenin Oxime and Oxime Ether Derivatives. *Int J Mol Sci.* 20(9): pii: E2184 (2019) **IF=4.556**
23. Csábi J, Rafai T, **Hunyadi A***, Zádor E*. Poststerone increases muscle fibre size partly similar to its metabolically parent compound, 20-hydroxyecdysone. *Fitoterapia*, 134: 459-464 (2019) **IF=2.527**
24. Ay E, **Hunyadi A***, Mezei M, Minárovits J, Hohmann J*. Flavonol 7-*O*-glucoside herbacitrin inhibits HIV-1 replication through simultaneous integrase and reverse transcriptase inhibition. *Evid Based Complement Alternat Med*, 2019: ID 1064793 (2019) **IF=1.813**
25. Heger V, Tyni J, **Hunyadi A**, Horakova L, Lahtela-Kakkonen M, Rahnasto-Rilla M. Quercetin based derivatives as sirtuin inhibitors. *Biomed Pharmacother*, 111: 1326-1333 (2019) **IF=4.545**
26. Fási L, Di Meo F, Kuo CY, Stojkovic Buric S, Martins A, Kúsz N, Béni Z, Dékány M, Balogh GT, Pesic M, Wang HC, Trouillas P, **Hunyadi A*.** Antioxidant-inspired drug discovery: antitumor metabolite is formed in situ from a hydroxycinnamic acid derivative upon free radical scavenging. *J Med Chem*, 62(3): 1657-1668 (2019) **IF=6.205**
27. Issaadi M, Csábi J, Hsieh TJ, Gáti T, Tóth G, **Hunyadi A*.** Side-chain cleaved phytoecdysteroid metabolites as activators of Protein Kinase B. *Bioorg Chem*, 82, 405-413 (2019) **IF=4.831**

2018

28. Bogdán D, Haessner R, Vágvölgyi M, Passarella D, **Hunyadi A**, Gáti T, Tóth G. Stereochemistry, and complete ^{1}H and ^{13}C NMR signal assignment of C-20-oxime derivatives of posterone 2,3-acetonide in solution state. *Magn Reson Chem*, 56(9): 859-866 (2018) **IF=1.731**
29. Fumagalli G, Giorgi G, Vágvölgyi M, Colombo E, Christodoulou M, Collico V, Prosperi D, Dosio F, **Hunyadi A**, Montopoli M, Hyraci M, Silvani A, Lesma G, Dalla Via L, Passarella D. Hetero-Nanoparticles by self-assembly of ecdysteroid and doxorubicin conjugates to overcome cancer resistance. *ACS Med Chem Lett*, 9(5): 468-471 (2018) **IF=3.737**
30. Zoofishan Z, Hohmann J, **Hunyadi A***. Phenolic antioxidants of *Morus nigra* roots, and antitumor potential of morusin. *Phytochem Rev*, 17(5): 1031-1045 (2018) **IF=4.257**
31. Ricci F, Carrassa L, Christodoulou MS, Passarella D, Michel B, Benhida R, Martinet N, **Hunyadi A**, Ioannou E, Roussis V, Musso L, Dallavalle S, Silvestri R, Westwood N, Mori M, Ingallina C, Botta B, Kavetsou E, Detsi A, Majer Z, Hudecz F, Bosze S, Kaminska B, Hansen TV, Bertrand P, Athanassopoulos CM, Damia G. A high-throughput screening of a chemical compound library in ovarian cancer stem cells. *Comb Chem High Throughput Screen.* 21(1):50-56 (2018) **IF=1.503**

32. Vágvölgyi M, Martins A, Kulmány Á, Zupkó I, Gáti T, Simon A, Tóth G, **Hunyadi A***. Nitrogen-containing ecdysteroid derivatives vs. multi-drug resistance in cancer: Preparation and antitumor activity of oximes, oxime ethers and a lactam. *Eur J Med Chem* 144:730-739 (2018) **IF=4.833**
33. Ötvös SB*, Vágvölgyi M, Girst G, Kuo CY, Wang HC, Fülöp F*, **Hunyadi A***. Synthesis of Non-Toxic Protoflavone Derivatives through Selective Continuous-Flow Hydrogenation of the Flavonoid B-Ring. *ChemPlusChem,* 83(2):72-76 (2018) **IF=3.441**

2017

34. Issaadi HM, **Hunyadi A***, Németh K*. Capillary electrophoresis study on the base-catalysed formation of bioactive oxidized metabolites of 20-hydroxyecdysone. *J Pharm Biomed Anal,* 146, 188-194 (2017) **IF=2.831**
35. Balázs A, **Hunyadi A**, Csábi J, Tillekeratne LMV, Martins A, Tóth G. New cyclic 2,3-sulfite ester derivatives of poststerone – Discriminating diastereomers and probing spatial proximities by NMR and DFT. *Magn Reson Chem,* 55: 1102-1107 (2017) **IF=1.776**
36. Dankó B, Tóth S, Martins A, Vágvölgyi M, Kúsz N, Molnár J, Chang FR, Wu YC, Szakács G, **Hunyadi A***. Synthesis and SAR Study of Novel Anticancer Protoflavone Derivatives – Investigation of Cytotoxicity and Interaction with the ABCB1 and ABCG2 Multidrug Efflux Transporters. *ChemMedChem,* 12: 850-859 (2017) **IF=3.009**
37. Issaadi HM, Tsai YC, Chang FR, **Hunyadi A*** Centrifugal Partition Chromatography in the isolation of minor ecdysteroids from a commercial extract of *Cyanotis arachnoidea. J Chromatogr B,* 1054: 44-49 (2017) **IF=2.441**
38. Ilkei V, Spaits A, Prechl A, Müller J, Könczöl E, Lévai S, Riethmüller E, Szigetvári E, Béni Z, Dékány M, Martins A, **Hunyadi A**, Antus S, Szántay Jr. C, Balogh GT, Kalaus G, Bölcskei H, Hazai L, C8-selective biomimetic transformation of 5,7-dihydroxylated flavonoids by an acid-catalysed phenolic Mannich reaction: Synthesis of flavonoid alkaloids with quercetin and (–)-epicatechin skeletons, *Tetrahedron,* 73(11): 1503-1510 (2017) **IF=2.377**
39. **Hunyadi A***, Csábi J, Martins A, Molnár J, Balázs A, Tóth G. Backstabbing P-gp: side-chain cleaved ecdysteroid 2,3-dioxolanes hyper-sensitize MDR cancer cells to doxorubicin without efflux inhibition. *Molecules,* 22(2): 199 (2017) **IF=3.098**
40. Tóth B, Chang FR, Hwang TL, Szappanos Á, Mándi A, **Hunyadi A**, Kurtán T, Jakab G, Hohmann J. Screening of Luzula species native to the Carpathian Basin for anti-inflammatory activity and bioactivity-guided isolation of compounds from *Luzula luzuloides* (Lam.) Dandy & Wilmott. *Fitoterapia* 116: 131-138 (2017) **IF=2.642**
41. Müller J, Martins A, Csábi J, Fenyvesi F, Könczöl A, **Hunyadi A***, Balogh GT*. BBB Penetration-targeting Physicochemical Lead Selection: Ecdysteroids as Chemo-sensitizers Against CNS Tumors. *Eur J Pharm Sci* 96: 571–577 (2017) **IF=3.466**
42. Kalász H, **Hunyadi A**, Tekes K, Dolesal R, Karvaly G. HPLC Analysis and Blood-Brain Penetration of 20-Hydroxyecdysone Diacetonide. *Acta Chromatogr,* 29(3): 375-383 (2017) **IF=0.773**

2016

43. Ilkei V, Spaits A, Prechl A, Szigetvári Á, Béni Z, Dékány M, Szántay C jr., Müller J, Könczöl Á, Szappanos Á, Mándi A, Antus S, Martins A, **Hunyadi A**, Balogh GT, Kalaus G, Bölcskei H, Hazai L, Kurtán T. Biomimetic synthesis of dracocephins A and B. *Beilstein J Org Chem* 12, 2523-2534 (2016) **IF=2.337**
44. Kuo CY, Zupkó I, Chang FR, **Hunyadi A**, Wu CC, Weng TS, Wang HC. Dietary flavonoid derivatives enhance the chemotherapeutic effect by inhibiting the DNA damage response pathway. *Toxicol Appl Pharmacol,* 311: 99-105 (2016) **IF=3.791**

45. Csábi J, Martins A, Sinka I, Csorba A, Molnár J, Zupkó I, Tóth G, Tillekeratne LMV, **Hunyadi A*.** Synthesis and chemo-sensitizing activity of fluorinated ecdysteroid derivatives. *MedChemComm,* 7: 2282-2289 (2016) **IF=2.608**
46. **Hunyadi A***, Herke I, Lengyel K, Báthori M, Kele Z, Simon A, Tóth G, Szendrei K. Ecdysteroid containing food supplements from *Cyanotis arachnoidea* on the European market: evidence for spinach product counterfeiting. *Sci Rep,* 6: 37322 (2016) **IF: 4.259**
47. Hsu YM, Lai WC, Li CY, Lan YH, Tsai YC, **Hunyadi A**, Hou MF, Yuan SS, Wu YC, Chang FR. Estrogenic and Anti-estrogenic Constituents of *Erythrina caffra*. *Nat Prod Commun* 11(8): 1099-1102 (2016) **IF: 0.773**
48. Hazai L, Keglevich A, Hegedűs L, Péter L, Gyenese J, Szántay C Jr, Dubrovay Z, Dékány M, Martins A, Molnár J, **Hunyadi A**, Keglevich P, Szigetvári Á. Anomalous Products in the Halogenation Reactions of Vinca Alkaloids. *Curr Org Chem* 20: 2639-2646 (2016) **IF: 1.924**
49. Hornok S, Kováts D, Flaisz B, Csörgő T, Könczöl Á, Balogh GT, Csorba A, **Hunyadi A.** An unexpected advantage of insectivorism: insect moulting hormones ingested by song birds affect their ticks. *Sci Rep,* 6: 23390 (2016) **IF: 4.259**
50. Gáti T, Simon A, **Hunyadi A**, Csábi J, Kele Z, Tóth G. New ring-rearranged metabolite of 20-hydroxyecdysone obtained by base-catalyzed auto-oxidation. *Magn Reson Chem,* 54(5): 391-395 (2016) **IF: 1.601**

2015

51. Csábi J, Hsieh TJ, Hasanpour F, Martins A, Kele Z, Gáti T, Simon A, Tóth G, **Hunyadi A*.** Oxidized Metabolites of 20-Hydroxyecdysone and their Activity on Skeletal Muscle Cells: Preparation of a Pair of Desmotropes with Opposite Bioactivities. *J Nat Prod* 78(10): 2339-2345 (2015) **IF: 3.662**
52. Stanković T, Dankó B, Martins A, Dragoj M, Stojković S, Isaković A, Wang HC, Wu YC, **Hunyadi A**, Pešić M. Lower capacity of multi-drug resistant cancer cells to manage oxidative stress confers collateral sensitivity to protoflavone derivatives. *Cancer Chemother Pharmacol* 76(3): 555-565 (2015) **IF: 2.824**
53. Martins A, Sipos P, Dér K, Csábi J, Miklos W, Berger W, Zalatnai A, Amaral L, Molnár J, Szabó-Révész P, **Hunyadi A*.** Ecdysteroids sensitize MDR and non-MDR cancer cell lines to doxorubicin, paclitaxel, and vincristine but tend to protect them from cisplatin. *Biomed Res Int* ID 895360, 8 p. (2015) **IF: 2.134**

2014

54. Lai WC, Dankó B, Csábi J, Kele Z, Chang FR, Pascu ML, Gáti T, Simon A, Amaral L, Tóth G*, **Hunyadi A***. Rapid, Laser-Induced Conversion of 20-Hydroxyecdysone – a Follow-up Study on the Products Obtained. *Steroids* 89:56-62 (2014) **IF: 2.639**
55. Lai WC, Wu YC, Dankó B, Cheng YB, Hsieh TJ, Martins A, Hohmann J, **Hunyadi A***, Chang FR*. Bioactive constituents of *Cirsium japonicum* var. *australe*. *J Nat Prod* 77:1624-1631 (2014) **IF: 3.798**
56. Seres AB, Ducza E, Báthori M, **Hunyadi A**, Béni Z, Dékány M, Hajagos-Tóth J, Verli J, Gáspár R. Androgenic effect of honeybee drone milk in rat: roles of methyl palmitate and methyl oleate. *J Ethnopharmacol* 153(2):446-453 (2014) **IF: 2.998**
57. **Hunyadi A***, Herke I, Veres K, Erdei A, Simon A, Tóth G. Volatile glycosides from the leaves of *Morus alba* L. with a potential contribution to the complex anti-diabetic activity. *Nat Prod Commun* 9(2):145-147 (2014) **IF: 0.906**
58. **Hunyadi A***, Martins A, Danko B, Chang FR, Wu YC*. Protoflavones: a class of unusual flavonoids as promising novel anticancer agents. *Phytochem Rev* 13:69-77 (2014) **IF: 2.407**

2013

59. Amaral L, Martins A, Spengler G, **Hunyadi A**, Molnár J. The mechanism by which the phenothiazine thioridazine cures problematic drug-resistant forms of pulmonary tuberculosis: Opportunities for patents for "new use". *Recent Pat Antiinfect Drug Discov* 8(3):206-12 (2013)
60. Martins A, Csábi J, Kitka D, Balázs A, Amaral L, Molnár J, Simon A, Tóth G, **Hunyadi A*.** Synthesis and Structure-Activity Relationship Study of Novel Ecdysteroid Dioxolanes as MDR Modulators in Cancer. *Molecules* 18:15255-15275 (2013) **IF: 2.095**
61. **Hunyadi A***, Liktor-Busa E, Márki Á, Martins A, Jedlinszki N, Hsieh TJ, Báthori M, Hohmann J, Zupkó I*. Metabolic effects of mulberry leaves – exploring potential benefits in type 2 diabetes and hyperuricemia. *Evid Based Complement Alternat Med* ID 948627 (2013) **IF: 2.175**
62. Balázs A, **Hunyadi A**, Csábi J, Jedlinszki N, Martins A, Simon A, Tóth G. ^{1}H and ^{13}C NMR investigation of 20-hydroxyecdysone dioxolane derivatives, a novel group of MDR modulator agents. *Magn Reson Chem*, 51(12):830-836 (2013) **IF: 1.559**
63. **Hunyadi A***, Martins A, Danko B, Chuang DW, Trouillas P, Chang FR, Wu YC, Falkay G. Discovery of the first non-planar flavonoid that can strongly inhibit xanthine oxidase: Protoapigenone 1′-*O*-propargylether. *Tetrahedron Lett*, 54(48): 6529-6532 (2013) **IF: 2.391**
64. Armada AM, Alexandru T, Machado D, Danko B, **Hunyadi A**, Dinache A, Nastasa V, Boni M, Ramos J, Viveiros M, Molnar M, Pascu ML, Amaral L. The *In Vitro* Activity of Products Formed from Exposure of Chlorpromazine to a 266 nm Laser Beam Against Species of Mycobacteria of Human Interest. *In vivo* 27(5): 605-610 (2013) **IF: 1.148**
65. Poór M, Li Y, Kunsági-Máté S, Varga Z, **Hunyadi A**, Dankó B, Chang FR, Wu YC, Kőszegi T. Protoapigenone derivatives: albumin binding properties and effects on HepG2 cells. *J Photochem Photobiol B* 124:20–26 (2013) **IF: 2.803**
66. Pascu ML, Danko B, Martins A, Jedlinszki N, Alexandru T, Nastasa V, Boni M, Militaru A, Andrei IR, Staicu A, **Hunyadi A**, Fanning S, Amaral L. Exposure of chlorpromazine to 266nm laser beam generates new species with antibacterial properties: Contributions to a new process for drug discovery. *PLoS ONE*, 8(2): e55767 **IF: 3.534**
67. Martins A, **Hunyadi A**, Amaral L. Mechanisms of Resistance in Bacteria: An Evolutionary Approach. *The Open Microbiology Journal* 7 (Suppl 1-M4): 53-58 (2013)
68. Seres AB, Ducza E, Báthori M, **Hunyadi A**, Béni Z, Dékány M, Gáspár R. Raw drone milk of honeybee elicits uterothropic effect in rats: evidence for estrogenic activity. *J. Med. Food* 16(5):1–6 (2013) **IF: 1.699**
69. **Hunyadi A***, Veres K, Danko B, Kele Z, Weber E, Hetenyi A, Zupko I, Hsieh TJ*. *In vitro* anti-diabetic activity and chemical characterization of an apolar fraction of *Morus alba* leaf water extract. *Phytother. Res.* 27(6):847-851 (2013) **IF: 2.397**

2012

70. **Hunyadi A***, Martins A, Hsieh TJ, Seres A, Zupko I. Chlorogenic Acid and Rutin Play a Major Role in the in vivo Anti-diabetic Activity of *Morus Alba* Leaf Extract on Type II Diabetic Rats. *PLoS ONE* 7(11) e50619 (2012) **IF: 3.730**
71. Csupor D, Boros K, **Hunyadi A**, Veres K, Hohmann J. Validation of a Densitometric Method for the Determination of Theanine in Tea Extracts Using CP Atlas Software. *JPC-J. Planar Chromatogr.* 25(6): 571-574 (2012) **IF: 0.955**
72. Danko B, Martins A, Chuang DW, Wang HC, Amaral L, Molnar J, Chang FR, Wu YC*, **Hunyadi A*.** Cytotoxic activity of novel protoflavone analogs – selectivity towards a multidrug resistant cancer cell line. *Anticancer Res.* 32: 2863-2870 (2012) **IF: 1.713**

73. Martins A, Tóth N, Ványolós A, Béni Z, Zupkó I, Molnár J, Báthori M, **Hunyadi A*.** Significant activity of ecdysteroids on the resistance to doxorubicin in mammalian cancer cells expressing the human ABCB1 transporter. *J. Med. Chem.* 55: 5034-5043 (2012) **IF: 5.614**
74. Wang HC, Lee AYL, Chou WC, Wu CC, Tseng CN, Liu KYT, WL, Chang FR, Chuang DW, **Hunyadi A**, Wu YC. Inhibition of ATR-Dependent Signaling by Protoapigenone and Its Derivative Sensitizes Cancer Cells to Interstrand Cross-link–Generating Agents *In Vitro* and *In Vivo*. *Mol. Cancer Ther*. 11: 1443-1453 (2012) **IF: 5.599**
75. **Hunyadi A**, Danko B, Boni M, Militaru A, Alexandru T, Nastasa V, Andrei IR, Pascu ML, Amaral L. Rapid, laser-induced conversion of 20-hydroxyecdysone and its diacetonide – experimental set-up of a system for photochemical transformation of bioactive substances. *Anticancer Res.* 32: 1291-1298 (2012) **IF: 1.713**

2011

76. **Hunyadi A**, Chuang DW, Danko B, Chiang MY, Lee CL, Wang HC, Wu CC, Chang FR, Wu YC. Direct Semi-synthesis of the Anticancer Lead-drug Protoapigenone from Apigenin, and Synthesis of Further New Cytotoxic Protoflavone Derivatives. *PLoS ONE* 6(8): e23922 (2011) **IF: 4.092**
77. Tung CP, Chang FR, Wu YC, Chuang DW, **Hunyadi A**, Liu ST: Inhibition of the Epstein-Barr virus lytic cycle by protoapigenone. *J Gen Virol* 92(Pt 8):1760-1768 (2011) **IF: 3.363**

2010

78. Tóth N, **Hunyadi A**, Báthori M, Zádor E. Phytoecdysteroids and Vitamin D Analogues – Similarities in Structure and Mode of Action. *Curr. Med. Chem.* 17: 1974-1994 (2010) **IF: 4.630**

2008

79. Tóth N, Simon A, Tóth G, **Hunyadi A**, Kele Z, Báthori M. 26-Hydroxylated Ecdysteroids from *Silene viridiflora*. *J. Nat. Prod.* 71(8):1461-1463 (2008) **IF: 2.551**
80. **Hunyadi A***, Kalász H, Báthori M. Dynamic On-Column Eluent Modification – a Novel Strategy for Peak Resolution Enhancement: Application to the Preparative Separation of Ecdysteroid Isomers. *Chromatographia* 67(9-10): 767-772 (2008) **IF: 1.145**
81. Báthori M, Tóth N, **Hunyadi A**, Márki Á, Zádor E. Phytoecdysteroids and Anabolic-Androgenic Steroids – Structure and Effects on Humans. *Curr Med Chem* 15(1): 75-91 (2008) **IF: 4.944**

2007

82. **Hunyadi A**, Gergely A, Simon A, Tóth G, Veress G, Báthori M. Preparative-Scale Chromatography of Ecdysteroids of *Serratula wolffii* Andrae. *J Chrom Sci* **45**(2): 76-86 (2007) **IF: 0.880**

2005

83. Kalász H, **Hunyadi A**, Báthori M. Novel results of two-dimensional thin-layer chromatography. *J Liq Chromatogr* 28: 2489-2497. (2005) **IF: 0.814**

2004

84. Báthori M, **Hunyadi A**, Janicsák G, Máthé I. TLC of ecdysteroids with four mobile phases and three stationary phases. *JPC-J Plan Chromatogr* **17**(5): 335-341(2004) **IF: 0.879**
85. **Hunyadi A**, Tóth G, Simon A, Mák M, Kele Z, Máthé I, Báthori M. Two new ecdysteroids from *Serratula wolffii*. *J Nat Prod* 67(6): 1070-1072. (2004) **IF: 1.849**

86. Báthori M, Zupkó I, **Hunyadi A**, Gácsné-Baitz E, Dinya Z, Forgó P. Monitoring the antioxidant activity of extracts originated from various *Serratula* species and isolation of flavonoids from *Serratula coronata*. *Fitoterapia* 75: 162-167. (2004) **IF: 0.848**