

Dr. William F. Martin

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16.02.1957. Bethesda, Maryland, USA

Physiology in evolution

Područje

Origin of life

Objašnjavanje glavnih procesa u dvama najvažnijim tranzicijama u evoluciji

Najveća dostignuća

Endosimbioza kod porijekla eukariota

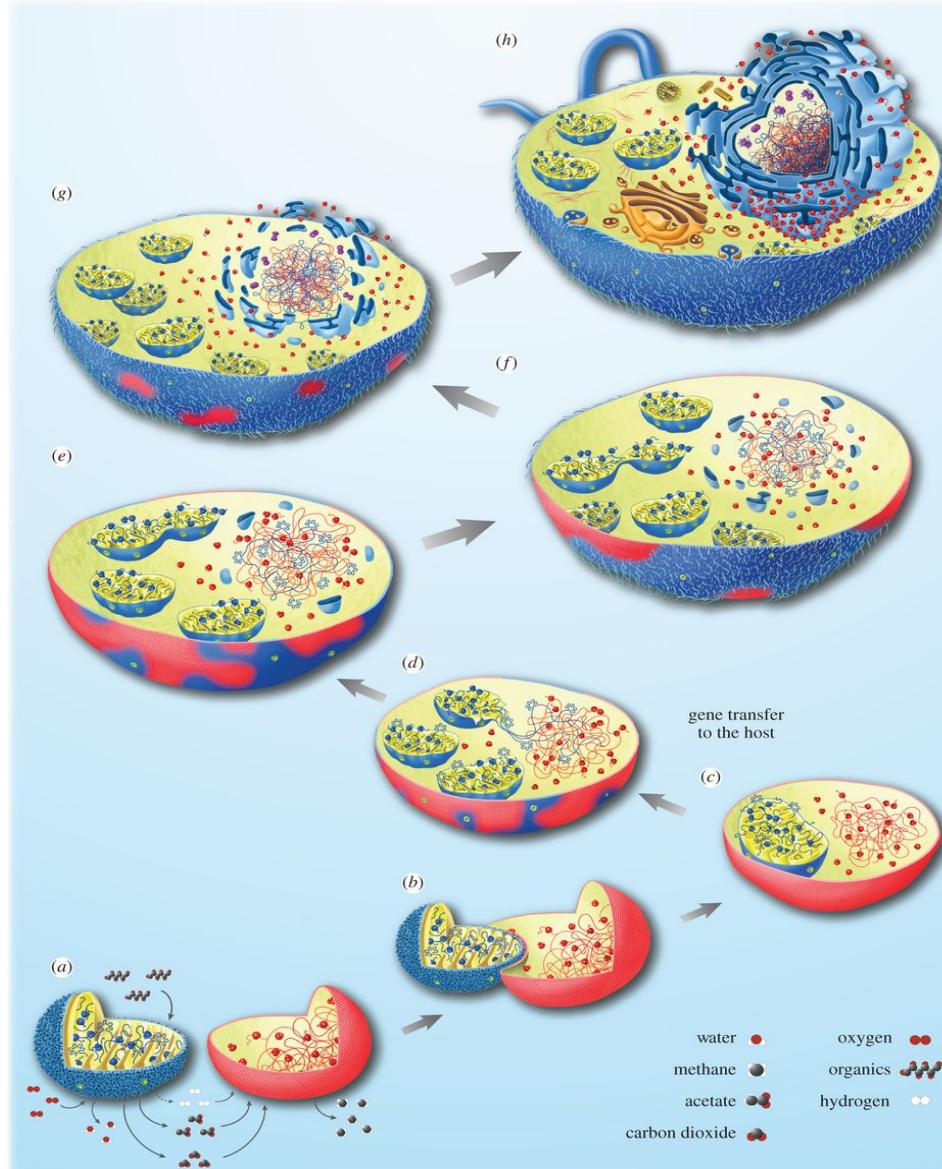
Geokemija kod porijekla života

Endosimbioza kod porijekla eukariota

The hydrogen hypothesis – Vodikova hipoteza (1998)

Mitochondrij se javlja kao endosimbiont unutar prokariota (arhee) pokrećući simbiotsku asocijaciju dviju stanica iz kojih se javljaju prvi eukarioti

Teorija predviđa:
„Prisutnost mitohondrija u zajedničkom pretku eukariota“
što je postalo sastavni dio svih udžbenika biologije

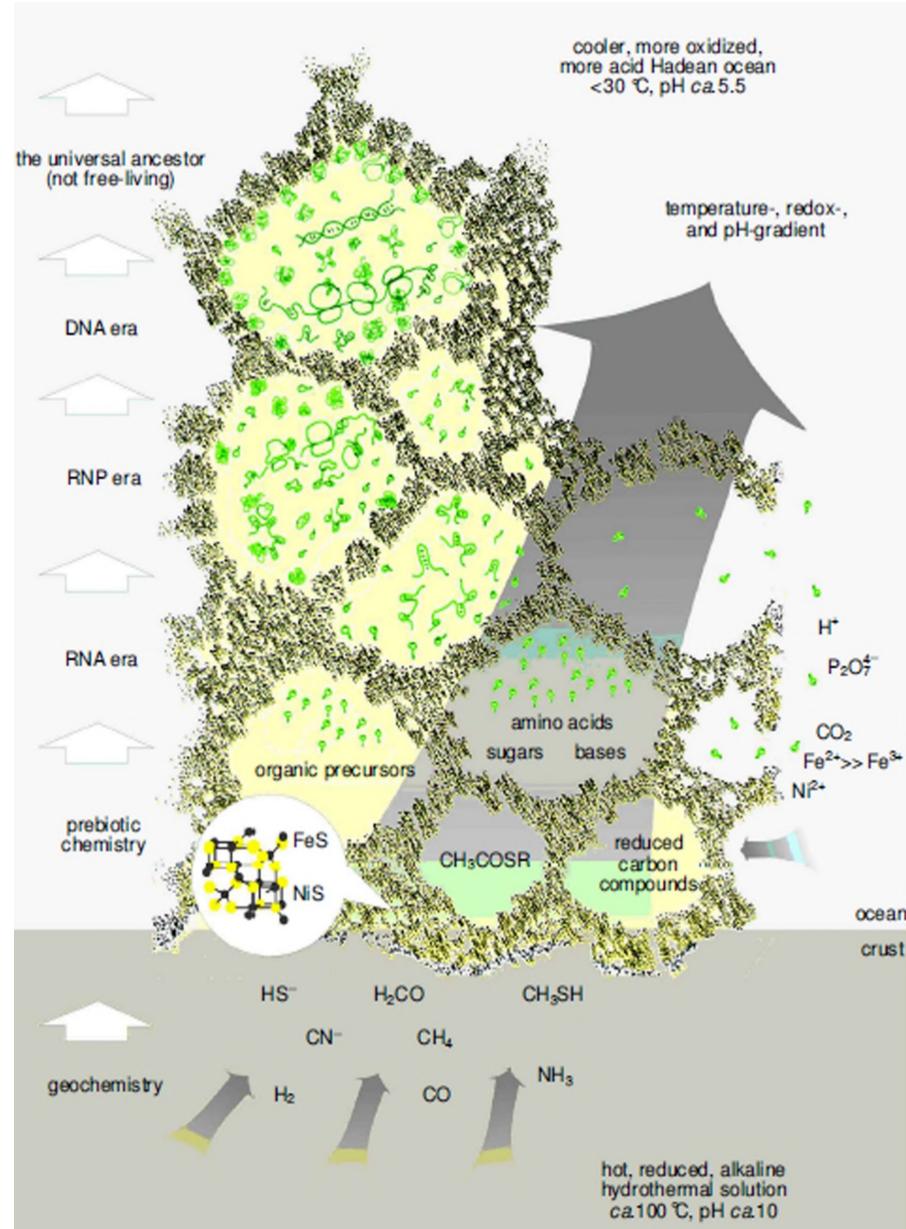


Geokemija kod porijekla života

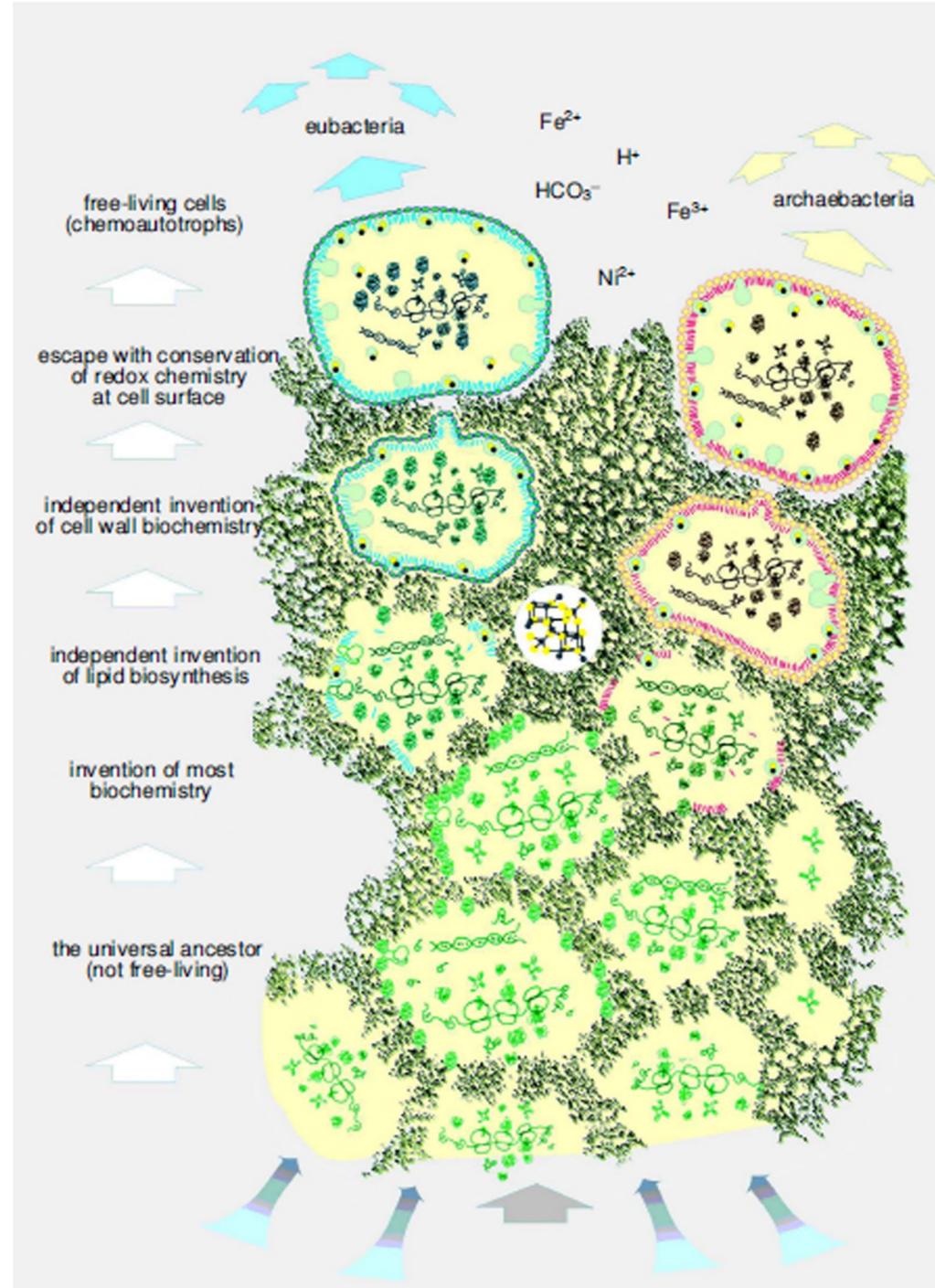
Hydrothermal vents and the origin of life
– Porijeklo života i hidrotermalni izvori
(2008)

Njegov prijedlog za porijeklo života
je baziran na komparativnoj
fiziologiji

Prepoznao sličnosti
spontanih geokemijskih
reakcija kod hidrotermalnih
izvora i biokemije o vodiku
ovisnih anaerobnih
autotrofa (acetogena i
metanogena)



**Taj seminalni rad je značajno
unaprijedio naše shvaćanje
rane evolucije smanjujući
razmak između kemijskih
reakcija u kojima sudjeluju
stijene, voda i ugljik na ranoj
Zemlji i kemijskih reakcija u
srcu metabolizma ugljika i
proizvodnje energije kod
najjednostavnijih prokariota**



University degree: 1981-1985, Technische Universität Hannover, Germany: Biology

Diplom thesis: 1985, Institut für Botanik, TU Hannover with Rüdiger Cerff: Botany

PhD thesis: 1985-1988, Max-Planck-Institut für Züchtungsforschung, Cologne, with Heinz Saedler; degree conferred by the University of Cologne: Genetics

Postdoc: 1988-1989, Max-Planck-Institut für Züchtungsforschung, Cologne

Postdoc: 1989-1999, Institut für Genetik, Technische Universität Braunschweig

Habilitation: 1992, TU Braunschweig, Germany, *veni a legendi* for the field of Botany

Full professor: 1999-2011 for "Ecological Plant Physiology" (C4), Universität Düsseldorf

2011-for "Molecular Evolution," (C4), Universität Düsseldorf

Familial status: Married, four children

Nationality: German

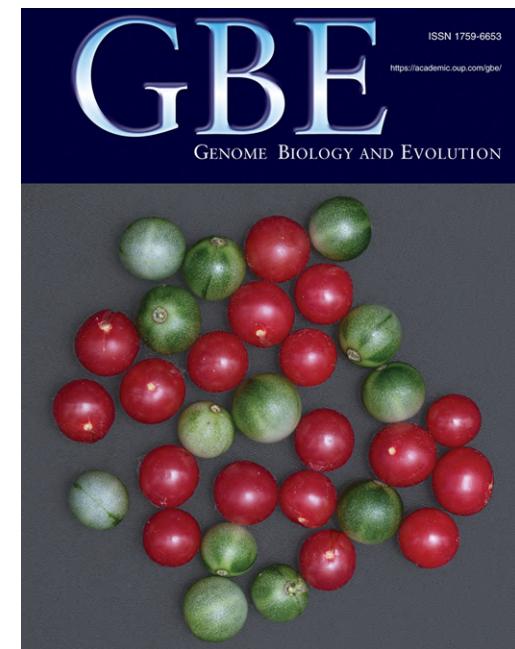


Total citations: 25600(Google Scholar)
H-index: 80 (Google Scholar)

16000 (ISI)
68(ISI)

Editor-in-Chief, Genome Biology and Evolution
Editor-in-Chief, Molecular Biology and Evolution

Editorial Board Member, Scientific Reports
Editorial Board Member, Microbial Genomics
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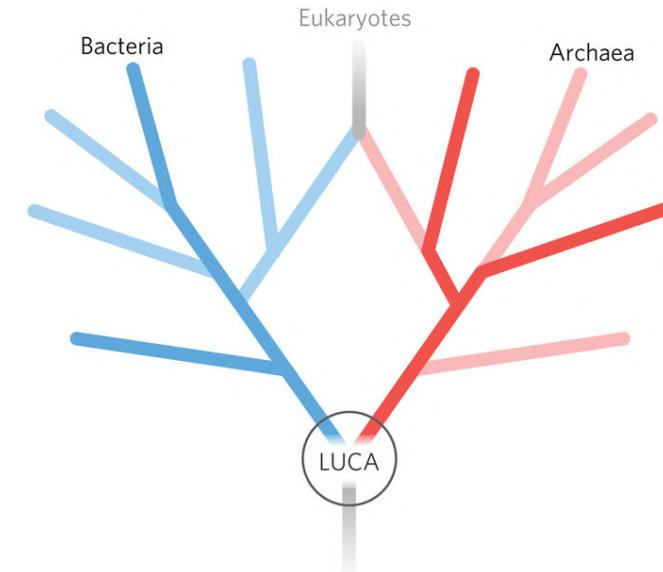
European Research Council Advanced Grant "eMicrobevol,"	2015–2019	€ 2,400,000
European Research Council Advanced Grant "Networkorigins,"	2009–2013	€ 2,000,000

EMBO member

Radovi:

Weiss MC, Sousa FL, Mrnjavac N, Neukirchen S, Röttger M, Nelson-Sathi S, Martin WF (2016) *: The physiology and habitat of the last universal common ancestor. *Nature Microbiology* 1:16116. **Q1, IF= 24.727, Rang 1/123 Microbiology**
*(Covered by 93 news outlets, Altmetric score >1040) – ovaj rad je bio jedan od medijski napopraćenijih i eksponiranijih znanstvenih radova u Hrvatskoj i svijetu u 2016. godini.

Weiss MC, Neukirchen S, Röttger M, Mrnjavac N, Nelson-Sathi S, Martin WF, Sousa FL (2016):
New views on Luca. *Nature Microbiology* 16230.
Q1, IF= 24.727, Rang 1/123 Microbiology



Rajević N, Kovačević G, Kalafatić M, Gould S, Martin WF, Franjević D. (2015)
Algal endosymbionts in European *Hydra* strains reflect multiple origins of the zoothorella symbiosis. *Molecular Phylogenetics and Evolution* 93:55–62. **Q1, IF= 3.795, Rang 10/46 Evolutionary biology**

Kongresna priopćenja:

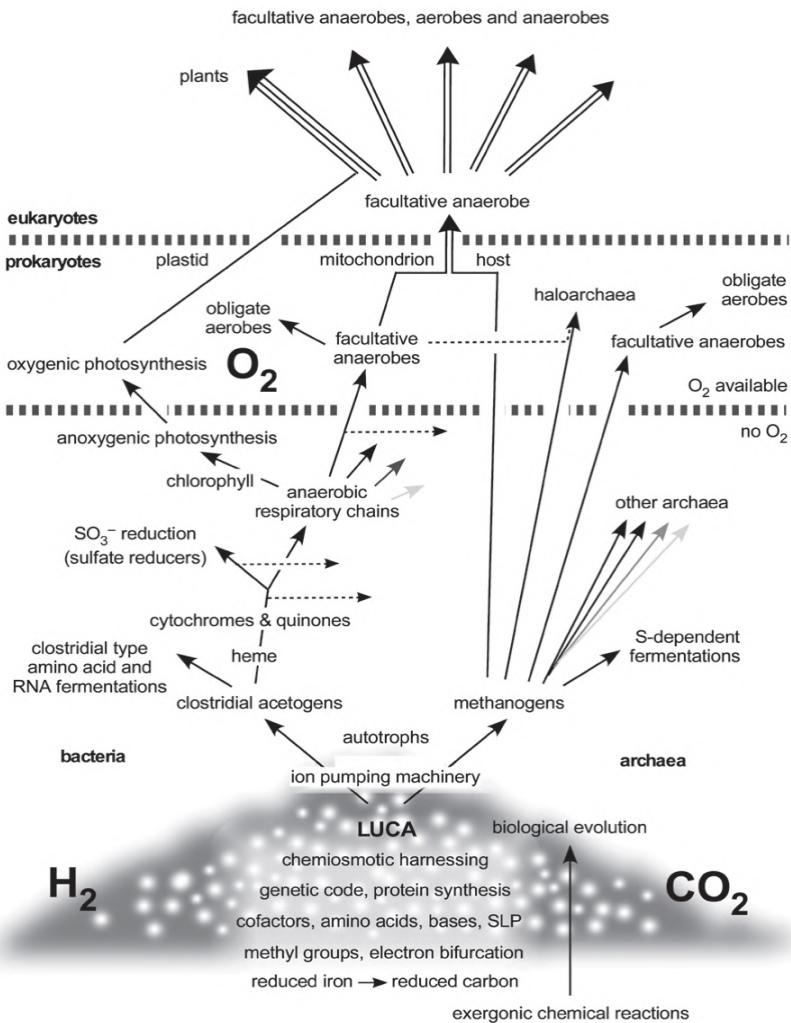


Rajević, Nives; Kovačević, Goran; Kalafatić, Mirjana; Gould, Sven; Martin, William; Franjević, Damjan. (2014). Algal endosymbionts in european Hydra strains reflect multiple origins of the zoothorella symbiosis . *Book of Abstracts of the Congress of the Croatian Society of Biochemistry and Molecular Biology "The Interplay of Biomolecules", HDBMB2014* / Katalinić, M ; Kovarik, Z (ur.). Zagreb : Croatian Society of Biochemistry and Molecular Biology. p 91.

Doktorske disertacije:

Dr. sc. Nives Rajević (2014). Identification of hydra-algae endosymbiotic relationship using molecular phylogeny methods.

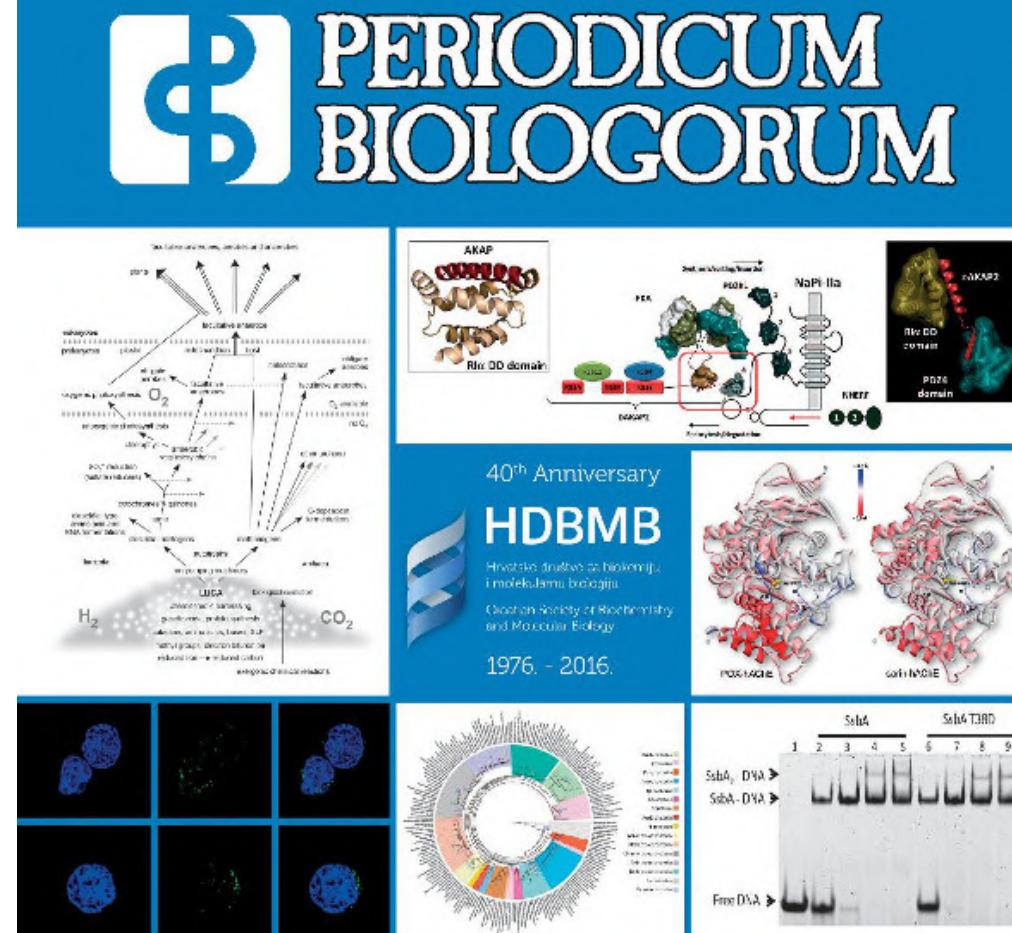
Martin WF: Physiology, phylogeny, and the energetic roots of life.
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Schluss!