

**Full Name:** Constantinos A. Demopoulos E-mail: [demopoulos@chem.uoa.gr](mailto:demopoulos@chem.uoa.gr)

**Title:** Professor of Biochemistry & Food Chemistry

**Education:**

Athens University, B.Sc. Chemistry (1971)

Athens University, Ph.D. in Chemistry (1973)

Post Doctoral studies at the University of Texas at San Antonio, USA  
(1978-80)

**Laboratory:** Biochemistry (Tel.: +30-210-7274265, FAX: +30-210-7274265)

**Teaching**

**Undergraduate:**

Food Chemistry, Biochemistry

**Graduate:**

Biochemistry

**Fields of**

**Interest:**

Lipid chemistry and biochemistry. Isolation, identification and determination of lipid molecules in foods of plant and animal origin.

Animal, plant and unicellular organism lipid biochemistry.

Food allergy - Mediterranean diet - cardiovascular diseases.

Platelet - Activating Factor (1-O-alkyl-2-acetyl-*sn*-glyceryl-3-phosphocholine, PAF) : Isolation and determination from natural sources, metabolism, mode of action, implication in diseases and its pathophysiological role, inhibitors, compounds with PAF- like activity.

**Book**

**authorship:**

1. Kinetics of Enzymes ( Athens, 1977, in Greek )

2. Tables of Intermediate Metabolism ( Athens, 1978, in Greek )

3. Subjects on Food Chemistry: Nutrition - Meat - Eggs - Lipids ( Athens, 1983, in Greek )

4. Notes on Biotechnology and Genetic Engineering ( Athens, 1990, in Greek, 1 co-author )

5. Biochemistry Experiments (2001, in Greek, 4 co-authors)

6. Biochemistry ( Athens, 1993, in Greek )

7. Nutrition ( Athens, 1996, in Greek, 1 co-author )

8. Biochemistry ( Athens, 2000, in Greek, 1 co-author )

9. PAF, a potent lipid mediator. In: BIOACTIVE PHOSPHOLIPIDS. ROLE IN INFLAMMATION AND ATHEROSCLEROSIS. (India, 2008, in English, 5 coauthors)

10. Biochemistry 2nd edition (Athens, 2009, in Greek, 1 co-author )

**Publications:**

125 research publications in international scientific journals and 2 patents.

**Representative papers:**

1. Platelet-Activating Factor. Evidence for 1-O-alkyl-2-acetyl-*sn*-glyceryl-3-phosphoryl- choline as the active component. (A new class of lipid chemical mediators).

- J. Biol. Chem. (1979) 254, 9355  
C.A.Demopoulos, R.N.Pinckard and D.J.Hanahan
2. Identification of naturally occurring Platelet-Activating Factor as acetyl-glycerol-etherphosphorylcholine (AGEPC).  
J. Biol. Chem. (1980) 255, 5514  
D.J.Hanahan, C.A.Demopoulos, J.Liehr and R.N.Pinckard
3. Phosphono platelet activating factor: Synthesis of 2-acetamido-2-deoxy-1-octadecyl-glycerol-3-(2-trimethyl ammoniummethyl) and (2-aminoethyl) phosphonates.  
Chem. Phys. of Lipids (1985) 37, 4552  
M.C.Moschidis and C.A.Demopoulos
4. Study of digoxin as inhibitor of the in vivo effects of acetyl glyceryl ether phosphorylcholine (AGEPC) in mice.  
Life Sciences (1988) 42, 623  
D.Kelefiotis, E.Lanara, C.Vakirtzis-Lemonias, A.Siafaka, M.Mavris, M.Lazanas and C.A.Demopoulos
5. Deterioration of some vegetable oils. I. During heating or frying of several foods.  
Revue Francaise des Corps Gras (1989) 36, 127  
N.K.Andrikopoulos, V.A.Tzamtzis, G.A.Giannopoulos, G.K.Kalantzopoulos and C.A.Demopoulos
6. PAF of biological fluids in disease: I. Levels in blood and urine in cancer.  
Clin. Chem. Enzymol. Commun. (1990) 3, 41  
C.A.Demopoulos, S.Koussissis, M.Lazanas and K.Labrakis-Lazanas
7. Inhibition by cardiolipins of PAF-induced rabbit platelet activation.  
Lipids (1993) 28, 1119  
D.K.Tsoukatos, C.A.Demopoulos, A.D.Tselepis, M.C.Moschidis, A.Donos, A.Evangelou and J.Benveniste
8. A Simple and precise method for the routine determination of Platelet-Activating Factor in blood and urine.  
Lipids (1994) 29, 305  
C.A.Demopoulos, N.K.Andrikopoulos and S.Antonopoulou
9. Platelet-Activating Factor acetylhydrolase (PAF-AH) in human kidney.  
Int. J. Biochem. (1994) 26, 1157  
S.Antonopoulou, C.A.Demopoulos, C. Iatrou, G. Moustakas and P.Zirogiannis
10. Study of Platelet-Activating Factor (PAF) levels and PAF acetylhydrolase in patients with primary glomerulonephritis.  
J. Lipid Mediators Cell Signalling (1994) 10, 117  
C.Iatrou, G. Moustakas, S. Antonopoulou, C.A. Demopoulos and P.Zirogiannis
11. Separation of the main neutral lipids into classes and species by RP-HPLC and UV detection.  
J. Liquid Chromatogr. (1994) 17, 633  
S.Antonopoulou, N.K.Andrikopoulos and C.A.Demopoulos.
12. PAF antagonists in food: Isolation and identification of PAF antagonists in honey and wax.  
Revue Francaise des Corps Gras (1994) 5/6, 127  
S.G.Koussissis, Ch.E.Semidalas, E.C.Hadzistavrou, V.Kalyvas, S.Antonopoulou and C.A.Demopoulos.
13. Platelet-Activating Factor formation during oxidative modification of low-density lipoprotein when PAF-acetylhydrolase has been inactivated.  
Biochim. Biophys. Acta (1994) 1212, 353  
T.A.Liapikos, S.Antonopoulou, S.-A.Karabina, D.C.Tsoukatos, C.A.Demopoulos and A.D.Tselepis
14. Blood cardiolipin in hemodialysis patients. Its implication in the biological action of Platelet-Activating Factor.  
Int. J. Biochem. Cell Biol. (1996) 28, 43  
S.Antonopoulou, C.A.Demopoulos and C.Iatrou
15. Separation of several main glycolipids into classes and partially into species by HPLC and

UV-detection.

J. Liquid Chromatogr. (1996) 19, 771

C.A.Demopoulos, M.Kyrili, S.Antonopoulou and N.K.Andrikopoulos

16. Isolation and complete separation of lipids from natural sources.

J. Liquid Chromatogr. (1996) 19, 521

C.A.Demopoulos, S.Antonopoulou N.K.Andrikopoulos and V.M.Kapoulas

17. The biological activity of acetylated sphingosylphosphorylcholine derivatives.

Int. J. Biochem. Cell Biol. (1996) 28, 63

A.Zanglis, E.A.Lianos and C.A.Demopoulos

18. Platelet-Activating Factor (PAF) antagonists in foods. A study of lipids, with PAF or anti-PAF like-activity, in cow's milk and yoghurt.

J. Agr Food Chem., (1996), 44, 3047.

S.Antonopoulou, Ch.E.Semidalas, S.Koussissis and C.A.Demopoulos

19. Lipid separation from *Urtica dioica*. Existence of Platelet-Activating Factor (PAF).

J. Agric. Food Chem., (1996), 44, 3052.

S.Antonopoulou, C.A.Demopoulos and N.K.Andrikopoulos

20. Implication of PAF and acetylhydrolase (AH) activity in periodontal disease.

Exp. Med. Biol. (1996) 416, 135

G.Baltas, H.Kotsifaki, S.Antonopoulou, A.Kipiotti and C.A.Demopoulos

21. Synthesis of a new phosphoglycolipid with biological activity towards platelets

Int. J. Biochem. Cell Biol., (1997) 29, 767

V. Avramopoulou, S. Antonopoulou, K. Frousios, D. Argyropoulos and C.A. Demopoulos

22. On the Mediterranean Diet.

INFORM, (1997) 8, 776

S.Antonopoulou and C.A.Demopoulos

23. Identification of a new endogenous Platelet-Activating Factor-like molecule in gingival crevicular fluid

Biochem. J. (1998) 330, 791

S.Antonopoulou, C.A. Demopoulos, D. Argyropoulos, G. Baltas, H.Kotsifaki and A.Kipiotti

24. Separation of biologically active lipids from red wine.

J.Agricultural Food Chemistry(2000) 48, 1234.

E.Fragopoulou, T.Nomikos, S.Antonopoulou, C.A.Mitsopoulou and C.A.Demopoulos

25. Lipid fractions with aggregatory and antiaggregatory activity toward platelets in fresh and fried cod (*Gadus morhua*): Correlation with platelet-activating factor and atherogenesis.

J. Agric. Food Chem. (2000) 48, 6372

A. Panayiotou, D. Samartzis, T. Nomikos, E. Fragopoulou, H.C.Karantonis,

C.A.Demopoulos and I.Zabetakis

26. Antithrombotic lipid minor constituents from vegetable oils. Comparison between olive oils and others.

J. Agric. Food Chem., (2002) 50, 1150

H.C.Karantonis, S.Antonopoulou and C.A.Demopoulos

27. One-step separation system from the main phospholipids, glycolipids, and phenolics by normal phase HPLC. Application to polar lipid extracts from olive and sunflower oils.

J.Liq.Chrom.&Rel.Technol.,(2002) 25, 137.

T.Nomikos, H.C.Karantonis, E.Fragopoulou and C.A.Demopoulos.

28. Platelet activating factor- a molecular link between atherosclerosis theories.

Eur. J. Lipid Sci. Technol. (2003) 150, 705

C.A.Demopoulos, H.C.Karantonis and S.Antonopoulou.

29. Structure elucidation of phenolic compounds from red/white wine with antiatherogenic properties.

Biochim. Biophys. Acta (2003) 1632, 90.

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30. Antiatherogenic properties of lipid minor constituents from seed oils.

J.Sci. Food Agric. (2003) 83, 1192.

H.C.Karantonis, I.Zabetakis, T.Nomikos and C.A.Demopoulos

31. Acetyl-CoA:1-O-alkyl-sn-glycero-3-phosphocholine acetyltransferase (lyso-PAF AT)

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32. Platelet-Activating Factor (PAF) involvement in acetaminophen-induced liver toxicity and regeneration.  
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H.C.Karantonis, E.Fragopoulou, S.Antonopoulou, J.Rementzis, C.Phenekos and C.A.Demopoulos

35. In vivo antiatherogenic properties of olive oil and its constituent lipid classes in hyperlipidemic rabbits.  
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H.C.Karantonis, S.Antonopoulou, D.N.Perrea, D.P.Sokolis, S.E.Theocharis, N.Kavantzias, D.G.Iliopoulos and C.A.Demopoulos

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37. Effect of Platelet-Activating Factor (PAF) receptor antagonist (BN52021) on acetaminophen-induced acute liver injury and regeneration in rats.  
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Grypioti A.D., Theocharis S.E., Demopoulos C.A., Papadopoulou-Daifoti Z., Basayiannis A.C. and Mykoniatis M.G.

38. Characterization of the de novo biosynthetic enzyme of Platelet Activating Factor (PAF), DDT-insensitive Cholinephosphotransferase (PAF-CPT), of Human Mesangial Cells  
Med.of Inflammation (2007) 2007:27683.  
A.B.Tsoupras, E.Fragopoulou, T.Nomikos, C.Iatrou, S.Antonopoulou, and C.A.Demopoulos

39. Recombinant platelet activating factor-acetylhydrolase attenuates paracetamol-induced liver oxidative stress, injury, and regeneration.  
Digestive Diseases and Sciences (2007) 52, 192-9  
A.D.Grypioti, M. Mykoniatis, C.A.Demopoulos, G.Kostopanagiotou

40. Anti - Platelet Activating Factor effects of Highly Active Anti-RetroviralTherapy (HAART):A new insight in the drug therapy of HIV infection?  
AIDS Researchand Human Retroviruses (2008) 24(8), 1079-1086.  
A. B. Tsoupras, M. Chini, N. Tsogas, E. Fragopoulou, T. Nomikos, A. Lioni, N. Mangafas, C. A. Demopoulos, S. Antonopoulou, M. C. Lazanas.

41. Synthesis, characterization and crystal structure of the cis-[RhL<sub>2</sub>Cl<sub>2</sub>]Cl complex with the bifunctional ligand (L) 2-(20-pyridyl)quinoxaline. Biological activity towards PAF (Platelet Activating Factor) induced platelet aggregation  
Polyhedron, (2009), 28, 3310-3316  
A. I. Philippopoulos, N. Tsantila, C. A. Demopoulos, C. P. Raptopoulou, V. Likodimos, P. Falaras

42. Atherosclerosis regression study in rabbits upon olive pomace polar lipid extract administration  
Nutrition, Metabolism & Cardiovascular Diseases (2009) xx, 1e8 (in press)  
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Journal of Agricultural and Food Chemistry, (2009), xx,xx,  
G. Stamatakis, N. Tsantila, M. Samiotaki, G. Panagyotou, A.C. Dimopoulos, C.P. Halvadakis,  
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Demopoulos, I. Zabetakis  
45. The implication of Platelet Activating Factor in cancer growth and metastasis; potent  
beneficial role of PAF-inhibitors and antioxidants.  
Infectious Disorders-Drug Targets (2009), 9, 390-399  
A.B. Tsoupras, C. Iatrou, C. Frangia, C.A. Demopoulos

#### **Contact**

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