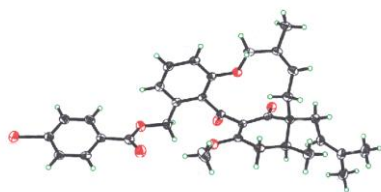


# ❧ CURRICULUM VITAE – Dr. TAMSYN MONTAGNON ❧



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Nationality: British

Gender: Female

## CURRENT WORK ADDRESS:

Department of Chemistry

University of Crete

Vasilika Vouton

71003, Heraklion, Crete, Greece

## EXPERIENCE AND QUALIFICATIONS.

- **2011 – current:** **Senior Researcher & Publications Specialist** at the University of Crete (Greece) working in the group of Professor G. Vassilikogiannakis; for the first six years of this period, on **ERC-Starting Grant "Ideas" program** titled: “Advancing the green chemistry of singlet oxygen and applying it to synthetic challenges”
- **2004 – 2011:** **Marie Skłodowska-Curie Research Fellow, and, then, re-Integration Fellow** at the University of Crete (Greece) with Professors G.Vassilikogiannakis & M. Stratakis - focusing on the synthesis of bioactive natural products and other high value targets, as well as, on the development of new green technologies for organic synthesis.
- **2001 – 2004:** **Postdoctoral Fellow** at the Scripps Research Institute (San Diego, U.S.A.) with Professor K. C. Nicolaou - focusing on the total synthesis of bioactive natural products and the development of new and enabling technologies for organic synthesis.
- **1997 – 2000:** **D.Phil.** University of Sussex (U.K.), supervisor – Professor P. J. Parsons. Thesis title: Studies Toward the Total Synthesis of the Squalostatins.
- **1993 – 1997:** **B.Sc.** Medicinal Chemistry (1<sup>st</sup> Class Honours), University of Leeds (U.K.).

## INDUSTRIAL EXPERIENCE.

- **AstraZeneca Pharmaceuticals – (1995 – 1996).**
  - Medicinal Chemistry - research team member at Charnwood R&D site (U.K.). Sandwich-year during first degree. Trained in drug discovery chemistry, lead optimisation techniques and various relevant technologies *via* 2 projects: one based on a benzothiazolone template in search for lead compounds for anti-asthma program, and, in the second, the synthesis of highly substituted cyclobutanes for evaluation in anti-viral and anti-thrombotic therapeutic areas was required.
- **Smithkline-Beecham Pharmaceuticals – (1992 – 1993).**
  - Development Chemistry - junior research team member at Great Burgh R&D site (U.K.). Trained in scale and production related issues. Given responsibility for one step in production process of a novel cephalosporin antibiotic, requiring optimisation & development of protocols for records and submission to regulatory authorities.
- **Smithkline-Beecham Pharmaceuticals – (1994 Summer internship).**
  - 3-Month Internship at Walton Oaks site (U.K.) experience gained within the Microbiology Department in another component of the drug discovery process. Trained to undertake testing in biological systems. Delivered a profile for a novel drug in blood serum samples under various conditions as part of a full

pharmacokinetic study. Also participated in delivery of Minimum Inhibitory Concentration studies for series of new antibiotic candidates.

## PERSONAL AWARDS.

- **18<sup>th</sup> European Symposium on Organic Chemistry – Marseille (2013)**  
Syngenta sponsored poster communication award.
- **Marie Skłodowska-Curie (Re)Integration Fellowship (2008-2011)** Funded by the European Union under the 6<sup>th</sup> European Community Framework Program. Proposal title “*Developing Tandem Reaction Sequences for the Rapid Synthesis of Selected Bioactive Natural Products Followed by Parallel Synthesis of Analogue Libraries and Biological Evaluation*”
- **Marie Skłodowska-Curie IntraEuropean Fellowship (2005-2007)**  
Funded by the European Union under the 6<sup>th</sup> European Community Framework Program (total funds € 138,536). Proposal title “*New and Environmentally Friendly Methods for Making Compounds with Medicinal Importance: Novel Singlet Oxygen Chemistry Combined with Cascade Reactions for Synthesis of Bioactive Natural Products.*”
- **Glaxo-Wellcome Postdoctoral Fellowship (2001)**  
Awarded fellowship after producing an independently conceived and detailed research proposal, defended to a mixed panel of academics and industrial scientists. It provided the funding for first year of postdoctoral studies at The Scripps Research Institute (U.S.A.) with Professor K.C. Nicolaou.
- **Roche Symposium For Leading Chemists of the Next Decade (1999)**  
Speaker by invitation at this conference in Basel, Switzerland.
- **AstraZeneca Postgraduate Scholarship (1999)**  
Competitively awarded scholarship (value £10,000) for final year of Ph.D studies.
- **Westminster Prize**  
Awarded at symposium held at the House of Lords (upper house of UK parliament) in November 1999. Subsequently co-opted to join group of young scientists under the organisation of SET (Science, Engineering and Technology) For Britain and the RSC (Royal Society of Chemistry) whose aim was to lobby policy makers in order to promote medical, biological and physical sciences research and improve public perception and comprehension of scientific issues.
- **Glaxo-Wellcome Postgraduate Symposium – Sussex University (1998)**  
Best poster prize at this symposium.
- **CASE Award – sponsored by AstraZeneca 1997-2000**  
3-year graduate fellowship

## EUROPEAN COMMISSION RESEARCH EXECUTIVE AGENCY.

Member of the **Chemistry Panel** (2013-current). I have assisted the agency with the evaluation process via a number of different roles.

## REFEREE for International Journals:

Journal of the American Chemical Society (ACS), Organic Letters (ACS), Organic Chemistry Frontiers (RSC), Molecules (MDPI), International Journal of Molecular Sciences (MDPI).

## PUBLICATIONS.

According to Google Scholar (13/05/2021), the publications listed below have been **cited 6331 times** and my **h-index is 31**.

49. Bosveli, A.; **Montagnon, T.**; Kalaitzakis, D.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2021**, *19*, 3303 – 3317. “Eosin: a versatile organic dye whose synthetic uses keep expanding.”

48. Kalaitzakis, D.; Bosveli, A.; Sfakianaki, K; **Montagnon, T.**; Vassilikogiannakis, G. *Angewandte Chem. Int. Ed.* **2021**, *60*, 4335 – 4341. "Mult-Photocatalyst Cascades: Merging Singlet Oxygen Photooxygenations with Photoredox Catalysis for the Synthesis of Alkaloid Frameworks."
47. Kalaitzakis, D.; Sofiadis, M.; Tsopanakis, V.; **Montagnon, T.**; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2020**, *18*, 2817 – 2822. "Merging singlet-oxygen induced furan oxidations with organocatalysis: synthesis of enantiopure cyclopentanones and hydrindanes."
46. **Montagnon, T.**; Kalaitzakis, D.; Sofiadis, M.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2020**, *18*, 180 – 190. "The reticent tautomer: exploiting the interesting multisite and multitype reactivity of 4-pyrrolin-2-ones."
45. Pergantis, S. A.; Saridakis, I.; Lyratzakis, A.; Mavroudakis, L.; **Montagnon, T.** *J. Chem. Edu.* **2019**, *96*, 936 – 943. "Buffer squares: a graphical approach for the determination of buffer pH using logarithmic concentration diagrams."
44. Sofiadis, M.; Kalaitzakis, D.; Sarris, J.; **Montagnon, T.**; Vassilikogiannakis, G. *Angewandte Chem. Int. Ed.* **2019**, *58*, 6742 – 6746. "Vinylogous reactivity of cyclic 2-enones: Organocatalysed asymmetric addition to 2-enals to synthesize fused carbocycles".
43. Sofiadis, M.; Sarris, J.; **Montagnon, T.**; Kalaitzakis, D.; Vassilikogiannakis, G. *Eur. J. Org. Chem.* **2018**, *33*, 4523 – 4526. "Rapid access to 3-acyl-5-alkoxybutyrolactams using triplet and singlet oxygen."
42. Ioannou, G.I; **Montagnon, T.**; Kalaitzakis, D.; Pergantis, S.A.; Vassilikogiannakis, G. *ChemPhotoChem* **2018**, *2*, 860 – 864. "One-pot synthesis of diverse  $\gamma$ -lactam scaffolds facilitated by a nebulizer-based continuous flow photoreactor
41. Ioannou, G.; **Montagnon, T.**; Kalaitzakis, D.; Pergantis, S.; Vassilikogiannakis, G. *ChemPhotoChem*, **2017**, *1*, 173 – 177. "A novel nebuliser-based continuous flow reactor: Introducing the use of pneumatically generated aerosols for highly productive photooxidations."
40. **Montagnon, T.**; Kalaitzakis, D.; Sofiadis, M.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2016**, *14*, 8636 – 8640. "Chemoselective photooxygenation of furans bearing unprotected amines: their use in alkaloid synthesis.
39. Kouridaki, A.; Sofiadis, M.; **Montagnon, T.**; Vassilikogiannakis, G. *Eur. J. Org. Chem.* **2015**, *33*, 7240 – 7243. "Pectenotoxin's ABCDE-ring system: A complex target to test the potential of singlet oxygen super cascades as tools for synthesis."
38. Kalaitzakis, D.; Kouridaki, A.; Noutsias, D.; **Montagnon, T.**; Vassilikogiannakis, G. *Angewandte Chem. Int. Ed.* **2015**, *54*, 6283 – 6287. "Methylene Blue as Photosensitizer and Redox Agent: Synthesis of 5-Hydroxy-1H-pyrrol-2(5H)-ones from Furans."
37. Kalaitzakis, D.; **Montagnon, T.**; Ioannou, G. I.; Antonatou, E.; Vassilikogiannakis, G. *Arkivoc* **2015**, (iii) 154 – 166. "Singlet oxygen-mediated transformation of furans into aromatic nitrogen-containing polycycles in water."
36. **Montagnon, T.**; Kalaitzakis, D.; Triantafyllakis, M.; Stratakis, M.; Vassilikogiannakis, G. *Chem. Commun.* **2014**, *50*, 15480 – 15498. "Furans and singlet oxygen – why there is more to come from this powerful partnership." [FEATURE ARTICLE, HIGHLIGHTED as front cover].
35. Triantafyllakis, M.; Tofi, M.; **Montagnon, T.**; Kouridaki, A.; Vassilikogiannakis, G. *Organic Lett.* **2014**, *16*, 3150 – 3153. "Singlet oxygen-mediated synthesis of bis-spiroketal found in azaspiracids."
34. Koukaras, E. N.; **Montagnon, T.**; Trikalitis, P.; Bikiaris, D.; Zdetsis, A. D.; Froudakis, G. E. *J. Phys. Chem. C* **2014**, *118*, 8885 – 8890. "Toward efficient drug delivery through suitably prepared metal-organic frameworks: A first-principles study."

33. Kalaitzakis, D.; **Montagnon, T.**; Antonatou, E.; Vassilikogiannakis, G. *Organic Lett.* **2013**, *15*, 3714 – 3717. "One-pot synthesis of the tetracyclic framework of the aromatic *erythrina* alkaloids from simple furans."
32. Kalaitzakis, D.; **Montagnon, T.**; Antonatou, E.; Bardaji, N.; Vassilikogiannakis, G. *Chemistry a European Journal* **2013**, *19*, 10119 – 10123. "From simple furans to complex nitrogen-bearing aromatic polycycles by means of a flexible and general reaction sequence initiated by singlet oxygen" [HIGHLIGHTED in *Chemistry Views*, [http://www.chemistryviews.org/details/ezone/4963871/Nitrogen-Containing\\_Polycycles\\_from\\_Furans.html](http://www.chemistryviews.org/details/ezone/4963871/Nitrogen-Containing_Polycycles_from_Furans.html)].
31. Kouridaki, A.; **Montagnon, T.**; Kalaitzakis, D.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2013**, *11*, 537 – 541. "Using singlet oxygen to synthesise the CDE-ring system of the pectenotoxins."
30. Kalaitzakis, D.; **Montagnon, T.**; Alexopoulou, I.; Vassilikogiannakis, G. *Angewandte Chem. Int. Ed.* **2012**, *51*, 8868 – 8871. "A versatile synthesis of Myers' bicyclic lactams from furans: Singlet-oxygen-initiated reaction cascade."
29. Kouridaki, A.; **Montagnon, T.**; Tofi, M.; Vassilikogiannakis, G. *Organic Lett.* **2012**, *14*, 2374 – 2377. "Photooxidations of 2-( $\gamma,\epsilon$ -dihydroxyalkyl)furans in water: Synthesis of DE-bicycles of the Pectenotoxins."
28. Noutsias, D.; Alexopoulou, I.; **Montagnon, T.**; Vassilikogiannakis, G. *Green Chem.* **2012**, *14*, 601 – 604. "Using water, light, air and spirulina to access a wide variety of polyoxygenated compounds"
27. **Montagnon, T.**; Noutsias, D.; Alexopoulou, I.; Tofi, M.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2011**, *9*, 2031 – 2039. "The green oxidations of furans-initiated by molecular oxygen-that give key natural product motifs"
26. Vassilikogiannakis, G; Alexopoulou, I.; Tofi, M.; **Montagnon, T.** *Chem. Commun.*, **2011**, *47*, 259 – 261. "Singlet oxygen initiated cascade transformation of a simple difuran into the key ABC-ring motif of the pectenotoxins"
25. Pavlakos, E. Georgiou, T.; Tofi, M.; **Montagnon, T.**; Vassilikogiannakis, G. *Organic Lett.* **2009**, *11*, 4556 – 4559. " $\gamma$ -Spiroketal  $\gamma$ -lactones from 2-( $\gamma$ -hydroxyalkyl)furans: Syntheses of *epi*-pyrenolides D and crassalactone D"
24. **Montagnon, T.**; Tofi, M.; Vassilikogiannakis G. *Acc. Chem. Res.* **2008**, *41*, 1001 – 1011. "Using singlet oxygen to synthesize polyoxygenated natural products from furans"
23. Margaros, I.; **Montagnon, T.**; Vassilikogiannakis, G. *Organic Lett.* **2007**, *9*, 5585 – 5588. "Spiroperoxy lactones from furans in one pot: Synthesis of (+)-Premnalane A"
22. Tofi, M.; **Montagnon, T.**; Georgiou, T.; Vassilikogiannakis, G. *Org. Biomol. Chem.* **2007**, *5*, 772 – 777. "Using singlet oxygen to synthesize a [6,6,5]-bis-spiroketal in one-pot from a simple 2,5-disubstituted furan" [Article featured on the cover of issue 5 2007]
21. Georgiou, T.; Tofi, M.; **Montagnon, T.**; Vassilikogiannakis, G. *Org. Lett.* **2006**, *8*, 1945 – 1948. "A versatile and general one-pot method for synthesizing bis-spiroketal motifs"
20. Margaros, I.; **Montagnon, T.**; Tofi, M.; Pavlakos, E.; Vassilikogiannakis, G. *Tetrahedron*, **2006**, *62*, 5308 – 5317. "The power of singlet oxygen chemistry in biomimetic syntheses"
19. Nicolaou, K. C.; **Montagnon, T.**; Vassilikogiannakis, G.; Mathison, C. J. *N J. Am. Chem. Soc.* **2005**, *127*, 8872 – 8888. "Total Synthesis of Coleophomones B, C, and D."
18. Sofikiti, N.; Tofi, M.; **Montagnon, T.**; Vassilikogiannakis G.; Stratakis M. *Org. Lett.* **2005**, *7*, 2357 – 2359. "Synthesis of the spirocyclic core of the Prunolides using a singlet oxygen-mediated sequence"
17. Vassilikogiannakis, G.; Margaros, I.; **Montagnon, T.**; Stratakis, M. *Chemistry a European Journal* **2005**, *11*, 5899 – 5907. "Illustrating the power of singlet oxygen chemistry in a synthetic context: Biomimetic syntheses of litseaverticillols A – G, I and J and the structural reassignment of Litseaverticillol E"

16. Tofi, M.; Georgiou, T. **Montagnon, T.**; Vassilikogiannakis G. *Org. Lett.* **2005**, 7, 3347 – 3350. “Regioselective ortho lithiation of 3-aryl and 3-styryl furans”
15. Vassilikogiannakis, G.; Margaros, I.; **Montagnon, T.** *Org. Lett.* **2004**, 6, 2039 – 2042. “Biomimetic total synthesis of Litseaverticillols B, E, I, and J and structural reassignment of Litseaverticillol E”
14. Nicolaou, K. C.; Mathison, C. J. N.; **Montagnon, T.**, *J. Am. Chem. Soc.* **2004**, 126, 5192 – 5201. "o-Iodobenzoic acid (IBX) as Viable Reagent in the Manipulation of Nitrogen- and Sulfur- Containing Substrates: Scope, Generality and Mechanism of IBX-Mediated Amine Oxidations and Dithiane Deprotections.”
13. Nicolaou, K. C.; Mathison, C. J. N.; **Montagnon, T.**, *Angew. Chem. Int. Ed.*, **2003**, 42, 4077 – 4082. "New Reactions of IBX: Oxidation of Nitrogen- and Sulfur Containing Substrates to Afford Useful Synthetic Intermediates.”
12. Nicolaou, K. C.; **Montagnon, T.**; Vassilikogiannakis, G. E. *BIO*, **2003**, 5, 22 – 30, "Developments in Cancer Chemotherapy”.
11. Nicolaou, K. C.; **Montagnon, T.**; Snyder, S. A. *Chem. Commun.*, **2003**, 5, 551 – 563. "Tandem Reactions, Cascade Sequences and Biomimetic Strategies in Total Synthesis.”
10. Nicolaou, K. C.; **Montagnon, T.**; Vassilikogiannakis, G. E. *Chem. Commun.*, **2002**, 2478 – 2479. "Total Synthesis of Coleophomone D.”
9. Nicolaou, K. C.; Vassilikogiannakis, G. E.; **Montagnon, T.** *Angew. Chem. Int. Ed.*, **2002**, 41, 3276 – 3281. (DESIGNATED HOT PAPER). "The Total Synthesis of The Coleophomones B and C.”
8. Nicolaou, K. C.; **Montagnon, T.**; Ulven, T.; Baran, P. S.; Zhong, Y.-L.; Sarabia, F. R. *J. Am. Chem. Soc.*, **2002**, 41, 5718 – 5728. "Novel Chemistry of  $\alpha$ -Sulfonyloxy Ketones: Applications to the Solution and Solid Phase Synthesis of Privileged Heterocycle and Ene-diyne Libraries.”
7. Nicolaou, K. C.; Snyder, S. A.; **Montagnon, T.**; Vassilikogiannakis, G. E. *Angew. Chem. Int. Ed.*, **2002**, 41, 1668 – 1698. “The Diels-Alder Reaction in Total Synthesis.”
6. Nicolaou, K. C.; **Montagnon, T.**; Baran, P. S. *Angew. Chem. Int. Ed.*, **2002**, 41, 1386 – 1389. "HIO<sub>3</sub> and I<sub>2</sub>O<sub>5</sub>: Mild and Selective Alternative Reagents to IBX for the Dehydrogenation of Aldehydes and Ketones.”
5. Nicolaou, K. C.; **Montagnon, T.**; Baran, P. S. *Angew. Chem. Int. Ed.*, **2002**, 41, 993 – 996. "Modulation of the Reactivity Profile of IBX by Ligand Complexation: Ambient Temperature Dehydrogenation of Aldehydes and Ketones to  $\alpha,\beta$ -Unsaturated Carbonyl Compounds.”
4. Nicolaou, K. C.; Gray, D. L. F.; **Montagnon, T.**; Harrison, S. T. *Angew. Chem. Int. Ed.*, **2002**, 41, 996 – 1000. "Oxidation of Silylenol Ethers Using IBX and IBX-N-oxide Complexes: A Mild and Selective Reaction for the Synthesis of Enones.”
3. Nicolaou, K. C.; **Montagnon, T.**; Baran, P. S.; Zhong, Y-L. *J. Am. Chem. Soc.*, **2002**, 124, 2245 – 2258. "Iodine(V) Reagents in Organic Synthesis. Part 4. IBX as a Chemospecific Tool for SET-Based Oxidation Processes.”
2. Parsons, P. J.; Gold, H.; Semple, G.; **Montagnon, T.** *Synlett*, **2000**, 1184 – 1185. "The Synthesis of Highly Functionalized Dienes for Natural Product Synthesis.”
1. Parsons, P. J.; **Montagnon, T.** *Synlett*. **1999**, 1407 – 1408. "Studies on the Synthesis of the Zaragozaic Acids. Discovery of a Novel Cascade Sequence.”

## BOOKS

Nicolaou, K. C.; **Montagnon, T.** “*Molecules That Changed the World*” Wiley-VCH Eds **2008**, ISBN 978-3-527-30983-2

Vassilikogiannakis, G.; **Montagnon, T.** Book chapter for the *Science of Synthesis*, volume 38, chapter 38.5. Thieme Eds **2008**. “Acyclic Alkyl Peroxides”