

Photochemistry and photobiology of biomolecules

Chair: J. Cadet (Grenoble, FRA)

Oral Presentations:

Interaction of UVC/UVB radiation with DNA simple and double helices: from photon absorption to photodamage

D. Markovitsi¹, E. Emanuela¹, T. Gustavsson¹, E. Lazzarotto¹, R. Lavery², S. Marguet¹, P. Millié¹, D. Onidas¹, A. Sharonov¹, F. Talbot¹, K. Zakrzewska² (¹Gif-sur-Yvette, FRA; ²Paris, FRA)

Photocaged radicals for the studies of oxidative DNA damage

Y. Wang (Riverside CA, USA)

Application of UV laser photochemistry to the studies of histone-DNA interactions and transcription factor binding to nucleosomes

D. Angelov^{1,2}, H. Menoni^{1,2}, J. Cadet³, P. Bouvet¹, S. Dimitrov^{1,4} (¹Lyon, FRA; ²Sofia, BUL; ³Grenoble, FRA; ⁴La Tronche, FRA)

Lipid hydroperoxides as an endogenous precursor of singlet molecular oxygen in the presence of metal ions and other reactive species

S. Miyamoto¹, G.R. Martinez^{1,2}, A.P. Bortoletto Martins¹, M.H. Gennari Medeiros¹, P. Di Mascio¹ (¹São Paulo, BRA. ²Curitiba, BRA)

Singlet oxygen-mediated formation of protein peroxides in cells and its consequences

V.V. Agon, M. Gracanin, P.E. Morgan, M.J. Davies (Sydney, AUS)

UVA radiation is highly mutagenic in cells that are unable to repair 7,-8-dihydro-8-oxoguanine in *Saccharomyces cerevisiae*

E. Sage¹, S. Kozmin¹, G. Slezak², A. Reynaud-Angelin¹, S. Boiteux² (¹Orsay, FRA; ²Fontenay aux Roses, FRA)

Sensitivity to polychromatic UV-radiation of strains of *Deinococcus radiodurans* differing in their DNA repair capacity

P. Rettberg¹, U. Pogoda de la Vega¹, T. Douki², J. Cadet² (¹Köln, GER; ²Grenoble, FRA)

Killed but metabolically active (KBMA) microbes: a new vaccine paradigm for eliciting effector T cell responses and protective immunity

D.G. Brockstedt¹, K.S. Bahjat¹, M.A. Giedlin¹, W. Liu¹, M. Leong¹, W. Luckett¹, Y. Gao¹, P. Schnupf³, D. Kapadia¹, G. Castro¹, J.Y.H. Lim¹, A. Sampson-Johannes¹, A.A. Herskovits³, A. Stassinopoulos¹, H.G. Archie Bouwer², J.E. Hearst¹, D.A. Portnoy³, D.N. Cook¹, T.W. Dubensky Jr.¹ (¹Concord CA, USA; ²Portland OR, USA; ³Berkeley CA, USA)

Experimental and theoretical study of the interaction of single-stranded DNA homopolymers and a monomethine cyanine dye: nature of specific binding

L. Mikelsons, C. Carra, M. Shaw, C. Schweitzer, J.C. Scaiano (Ottawa, CAN)

Photoinduced DNA damage by quinolininium derivatives – Singlet oxygen generation and unusual formation of hydroxyl radicals

H. Ihmels¹, C. Bohne², K. Faulhaber³, B. Giese⁴, A. Hofmann³, A.-K. Köhler⁴, A. Salbach¹, M.A.L. Sheepwash² (¹Siegen, GER; ²Victoria, CAN; ³Würzburg, GER; ⁴Basel, Switzerland)

Photoprocesses in densely packed stable stacking aggregates of nucleic bases of candidates for the role of first genetic matrixes

V.L. Rapoport, V. M. Malkin, S.V. Zorina, S.M. Komarov, V.V. Goriuchko (St. Petersburg, RUS)