

## Curriculum Vitæ

Malcolm Buckle (PhD)  
Research Director (DR2), CNRS  
Head of Laboratory: LBPA. UMR 8113 CNRS (<http://www.lbpa.ens-cachan.fr/version-anglaise/>)  
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Date of birth: 2 Nov. 1954 at Coleshill, United Kingdom  
Married with three children

### Academic degrees:

BSc Biochemistry (Hons) University College N. Wales Bangor, Gwyneth N.Wales (1974-1977)  
Ph.D. Chemistry (CNAAB) The Polytechnic, Wolverhampton, West Midlands. England (1977-1980)

### Professional experience:

2012- Head of Laboratory (LBPA UMR 8113 CNRS) ENS Cachan.  
2002- Head of group, Dynamics of Macromolecular Complexes, LBPA. (UMR 8113 CNRS), ENS Cachan.  
2000-2002 Head of group, Laboratory of Enzymology and Structural Kinetics, LBPA. (UMR 8532 CNRS), IGR Villejuif.  
1998 - Research Director CNRS.  
1986-1998 c/o Prof. Henri Buc, Institut Pasteur, URA 1149 du CNRS  
*Status:* Chargé de Recherche 1 au CNRS since Oct.1988  
1983-1985 Istituto di Chimica Biologica, Facoltà di Medicina, Università di Bari, Policlinico, BARI-It.  
*Status:* Assistant Professor  
1980-1982 Dept of Biochemistry, Health Sciences Ctr, McMaster Univ., HAMILTON, Ontario-Canada.  
*Status:* Post-doctoral fellow

### Present position:

Director of Research (CNRS): Head of Laboratory (LBPA. UMR 8113 CNRS) (<http://www.lbpa.ens-cachan.fr/version-anglaise/>)  
Responsible for a group entitled Dynamics of Macromolecular Complexes consisting of:  
Malcolm Buckle (DR2 CNRS) Responsible  
Hervé Leh (Research Engineer)  
Claude Nogues (CR1 CNRS)  
Akiko Hakateyama (Post doc)  
Aleksandra Delplanque (PhD)  
Marta Gordel (PhD)

## Scientific committees and activities:

- 2009- Member of the French Biophysical Society Counsel.  
2009- Member of the C'Nano IdF steering committee.  
2010-2012 Member of ANR evaluation committee (ANR SIMI 10).  
2010- Member of CLIO (Orsay) evaluation committee for CLIO (Orsay)  
2013- M. Buckle Vice president of the French Biophysical Society.

## Teaching and administrative experience:

- 2008-2011 Responsible for Biosensor program for Erasmus Mundus "Monabiphot" et the ENS cachan.
- Nov 2009 Thesis examiner: Nouvelles stratégies d'ancrage de protéines sur une surface de phosphonate de zirconium. Mathieu Cinier. Université de Nantes.
- 5 Nov. 2009 Thesis examiner Physicochemical study of DNA biochips. Julia Fuchs. University Grenoble I Joseph Fourier.
- 9 Nov 2006 Thesis examiner : La chromatine bactérienne élément de régulation génétique : Base moléculaire de la régulation du promoteur *proU* par la protéine H-NS chez *Escherichia coli*. Emeline Bouffartigues Université de Paris XI. Paris.
- 15 May 2006 Thesis examiner : développement des puces à protéines/peptides pour des applications en recherche fondamentale et clinique Boutheina Cherif L'université Joseph Fourier Grenoble.
- 17 Nov 2005 Thesis examiner : Mesures parallélisées d'interactions oligosaccharides/Protéines au moyen de Biopuces. Emilie Mercey, L'université Joseph Fourier Grenoble.
- 25 Nov 2004 Thesis examiner : Etude de la régulation de l'expression des gènes chez *Escherichia coli*, en lien avec le transport et le métabolisme du glucose, comprenant : - l'analyse moléculaire de la région promoteur dirigeant l'expression des genes *gapA* et *yeaA*, - l'étude de l'effet de l'absence de protéine EIIBC<sub>Glc</sub> assurant le transport spécifique du glucose sur le transcriptome d'*Escherichia coli*. Benoit Thouvenot Docteur de l'Université Henri Poincaré, Nancy-I
- 23 Dec 2002 Thesis examiner : "L'intégrase de VIH-1 Etude structure-Fonction recherche de partenaires cellulaires". Vincent Parissi L'univerité de Bordeaux 2
- 23 Oct 2001 Thesis examiner: "la caractérisation du site actif de l'ARN polymérase de T7 au site intrinsèque de terminaison". Dr Marc Boudvillain. Orléans
- 14 Dec 2000 Thesis examiner : "Immobilisation de molécules d'ADN sur mica pour leur étude en Microscopie à Force Atomique. Application à l'analyse des modifications induites par un rayonnement ionisant". Sylvie Boichot. L'université de Franche-Comte.
- 12 July 1999 Thesis examiner "La levure *Saccaromyces cerevisiae*, un nouvel outil pour l'étude de l'intégrase de VIH-1, et pour la sélection d'inhibiteurs spécifiques". Anne Caumont Université de Bordeaux 2.
- 14 Sept 1999 Thesis examiner : "*Caractérisation enzymatique et physicochimique d'une enzyme qui catalyse la formation de plusieurs pseudouridine dans les ARN de transfert chez S.cerevisiae*" : la pseudouridine synthétase *Pus1*. Véronique Arluison, Paris VI
- 12 July 1999 Thesis examiner : "*Définition d'un système d'expression et de purification d'ARN polymérases recombinantes du bactériophage T7. Etude de la transcription*

*de matrices ADN et ARN par ces polymérases.*” Madame Arnaud-Barb é Nadege.  
Université Claude Bernard Lyon I .

19 April 1993 Thesis examiner : *Caract érisation et purification du facteur cellulaire HEB1 intervenant dans l'activation de la transcription du virus HTLV-I par TAX1.* Ga ë Lombard-Platet, Université Claude Bernard, Lyon I

## Scientists supervised.

1. Angela Pazienza, Univ. de Bari-It., l'équivalent italien d'un DEA, 1983-1985
2. William Ashraf, Etudiant post-doctoral, Univ. de Nottingham-G.B., 11-22 mai 1992
3. Stefanie Margason, Etudiante, Univ. de Nottingham-G.B., mai 1993
4. Emmanuelle Delagoutte, Etudiante en Th èse, UPR9003 du CNRS à Strasbourg, juillet.- août 1993
5. Konstantin Brodolin, Moscou, boursier C.N.R.S., stage post-doctoral 1994
6. Jacqueline Oddos, Technicienne sup érieure C.N.R.S. depuis 1995-1998
7. Marie-Ange Jacquet, Ing énieur de recherche 1992-1995
8. Lucette Polomack Technicienne 1992-2000
9. Marie-Erard Stage du 30/06/97-25/06/97.
10. Pascal Roux. Ing énieur septembre 1998-fevrier 2000
11. Agnes Bourdet. DEA de G énetique Humaine (Paris VII) novembre 1997- juillet 1998
12. Karen Adelman.:Etudiante en th èse sept 1997-jan 1999
13. Bianca Sclavi: Stage post-doctoral, 1998-2004 then CR1 CNRS 2004-
14. Christophe Place. Stage post-doctoral 1995 -2000
15. Iain Pemberton: Stage post-doctoral. 1993-2000
16. Emmeline Bouffartigues: Etudiante DEAE 2001 then PhD from Sept 2002 –Nov 2006 (Directeur de th èse S. Rimsky).
17. Marie-Pierre Font: Ing énieur de recherche 2000-2003
18. Corine-Nicolas-Cabane: Ing énieur de recherche 2001- 2003
19. Joy Watawa: Fulbright Scholar 2005-2006
20. Herv é Leh: Ing énieur de recherche 2005-
21. Chiara Saggioro: stagiaire M1 then PhD Sept 2006-
22. Anne Oliver: Stage post-doctoral April 2006-
23. Claude Nogues : Stage Post doctorale 2007-2101, then CR1 CNRS 2010-
24. Marion Salsac: PhD 2010-2011
25. Andrew Travers: Invited Professor "chaire d'excellence ANR" (2008-2010)
26. Equipe d'enzymologie et cinétique structurale 2000-2002
27. Team of Dynamics of Macromolecular Complexes 2002-

teaching activities:

## Meeting organisations:

- Co organiser of workshop "6th RNA Polym érase Workshop", Paris, 23 -26 mars 1994
- Co organiser of EMBO course "*Structural dynamics of DNA-protein interactions*", Kreuth-D. 10-14 Sept 1995.

## Seminars and talks (last 2 years)

## National

1. 13 avril 2010 Journée annuelle de l'Institut d'Alembert (M. Buckle invited speaker)
2. 18 mars 2010 Imagerie de la matière et de la vivante" de l'instrument à l'algorithme.
3. 18 Oct 2010 Journée annuelle de l'Institut d'Alembert (M. invited speaker)
4. 29/06/2010 - 3/07/2010. l'école d'été de CNano PACO à Pourquerolles (M. Buckle invited speaker).

## International

1. 5/07/2010 - 8/07/2010 CPS 2010. Landjhou Chine. (M. Buckle invited speaker)
2. 28-30 April 2010 Wrocław, Poland PhoBiA Annual Nanophotonics International Conference "PANIC" . (M. Buckle invited speaker)
3. 24-26 April Miami USA 2013 Coral Gables Symposium (M. Buckle Invited Speaker)

## Patents

French patent Deposited by: CNRS, ENS CACHAN N° 0402905

Deposited: 22/03/2004 Title: A novel procedure for creating a peptide library. Inventor(s): Malcolm BUCKLE- (CNRS)

## Authored Books

- 1) Co-editor of "Protein-DNA interactions- a practical approach » (M. Buckle & A. A Travers) 1999 by Oxford University Press in the 'Practical approach series.
- 2) Invited expert for CHEMTRACTS (Biochemistry and Molecular Biology) ed by Alan P. Wolff

## Chapters in Books.

- 1) Buckle M. & Papa, S. Preliminary observations of changes in F<sub>0</sub>F<sub>1</sub> ATPase assembly during early rat-liver regeneration. in : *Membranes* (1984) pp. 119-121 (Papa S., Altendorf K.H., Ernster L., Packer L., eds.), ICSU Press, Miami-Adriatica Editrice.
- 2) Buckle, M., Guerrieri, F. & Papa, S. Changes in the mitochondrial F<sub>0</sub>F<sub>1</sub> H<sup>+</sup> ATPase during early rat liver regeneration. in: *Cell Membranes and Cancer* (1985) pp. 198-201
- 3) Buc, H., Amouyal, M., Buckle, M., Herbert, M., Kolb, A., Menendez, M., Rimsky, S., Spassky, A. & Yeramian, E. Activation of transcription by the cyclic AMP receptor protein in: *RNA polymerase and the regulation of transcription. A Steenbock Symp.* (1987) pp. 115-125, (Reznikoff W. et al., eds.) Elsevier Sci. Publ., New York
- 4) Buckle, M., Fritch, A., Roux, P., Geiselman, J. & Buc H. Adaptation of present methodologies to kinetic problems : studies on promoter-RNA polymerase complexes. *Methods in Enzymology* (1991) **208**, 236-258
- 5) Buckle, M & Buc H. On The Mechanism of Promoter Recognition by *E.coli* RNA Polymerase. in: Raven series on cellular and molecular biology, Vol. "Transcription: Mechanisms and Regulation". (R. Conaway & J. Conaway, eds) (1994) pp. 207-225.
- 6) Buckle, M. & Travers, A.A. Diffusible singlet oxygen as a probe for DNA deformation *Methods in Mol. Biol.*, vol. 30 "Protein-Nucleic Acid Interactions: Principles and Protocols." (1994) pp. 113-123 (G.G. Kneale, Ed., Humana Press Inc., Totowa-NJ)

- 7) Buckle, M., Churchil, M.E.A., Lazarus, L.R. & Travers A.A. The topology of bacterial transcription initiation complexes in DNA. Interactions with ligands and proteins. (5eds V. Buckin & O. Ozoline) (1994)
- 8) Buckle, M & Travers A, A. 'Diffusible singlet oxygen as a probe of DNA deformation' In *Methods in Mol. Biol.* "Protein-Nucleic Acid Interactions: Principles and Protocols." (Tom Moss, Ed., Humana Press Inc., Totowa-NJ) (1999)
- 9) Buckle M 'Surface plasmon resonance applied to DNA-protein complexes'. In *Methods in Mol. Biol.* "Protein-Nucleic Acid Interactions: Principles and Protocols." (Tom Moss, Ed., Humana Press Inc., Totowa-NJ) (1999)
- 10) Buckle, M., Place, C. & Pemberton, I. K. 'Laser UV crosslinking of nucleoprotein complexes in vitro ' in Protein-DNA Interactions: A Practical Approach (M. Buckle & A. Travers, eds.), Oxford University Press, Oxford, U.K. (2000).189-200
- 11) Persson, B., Buckle, M & Stockley, P.G. 'Kinetics of DNA interactions studied by surface plasmon resonance' in Protein-DNA Interactions: A Practical Approach (M. Buckle & A. Travers, eds.), Oxford University Press, Oxford, U.K. (2000). 257-279
- 12) Buckle M, and Travers A, A, 'Diffusible singlet oxygen as a probe of DNA deformation' in DNA-Protein interactions principles and protocols 2nd edition (Tom Moss ed) (2001) vol 148 151-160.
- 13) Buckle M, 'Surface Plasmon Resonance applied to DNA-protein complexes' in DNA-Protein interactions principles and protocols 2nd edition (Tom Moss ed) (2001) vol **148** 535-546.
- 14) Rimsky S and Buckle M. Protein-DNA Interactions in "Encyclopedia of Molecular Cell Biology and Molecular Medicine", (2004) (ed. R. A. Meyers) Wiley-VCH vol 3 2nd edition.
- 15) Rimsky S and Buckle M. Protein-DNA Interactions in "Proteins: from Analytics to Structural Genomics", (2007) (ed. R. A. Meyers) Wiley-VCH vol 1 pp347-376.
- 16) Buckle M. Plasmon resonance Revisited. (2008) In BIOWORLD Europe; 1 March 2008, 18-21.

## PUBLICATIONS

1. Buckle M., Epton R. & Marr G. Synthesis and gelation properties of crosslinked polymers of 4-(N-acryloyl-L phenylalanyl) morpholine,4-(O-acetyl-N-acryloyl-L tyrosyl)-morpholine and 4-(N-acryloyl-L-tyrosyl) morpholine *Polymer* (1980) **21**, 582-585.
2. Buckle M., Epton R., Marr G., Small P.W. & Hudson D.Polymer supported biopolymer synthesis : 2. Phenotic poly-(acryloyl morpholine) base preparation of protected arginyl acrylpeptide segments and derived arginyl peptides.*Int. J. Biol. Macromol.* (1982) **4**, 275-280.
3. Freeman K.B., Yatscoff W.R., Mason R.J., Patel V.H. & Buckle M.Characterization of a Chinese hamster ovary cell line resistant to uncouplers. *Eur. J. Biochem.* (1983) **134**, 215-222
4. Buckle ,M., Guerrieri, F. & Papa, S. Changes in activity and  $F_1$  content of mitochondrial  $H^+$  ATPase in regenerating rat-liver. *FEBS Lett.* (1985) **188**, 345-351
5. Buckle, M., Guerrieri, F., Paziienza, A. & Papa, S. Studies on polypeptide composition, hydrolytic activity and proton conduction of mitochondrial  $F_0F_1 H^+$  ATPase in regenerating rat-liver. *Eur. J. Biochem.* (1986) **155**, 439-445

6. Buckle, M. Regulation of ATP hydrolase activity of the F<sub>0</sub>F<sub>1</sub> complex of rat-liver mitochondria during early hepatic regeneration. *FEBS Lett.* (1986) **209**, 197-202
7. Buckle, M & Buc, H. Fine mapping of DNA single-stranded regions using base-specific chemical probes. Study of an open complex formed between RNA polymerase and the lac UV5 promoter. *Biochemistry* (1989) **28**, 4388-4396
8. Buckle, M., Fritch, A., Roux ,P., Geiselmann, J. & Buc H. Adaptation of present methodologies to kinetic problems : studies on promoter-RNA polymerase complexes. *Methods in Enzymology* (1991) **208**, 236-258
9. Buckle, M., Geiselmann,J., Kolb, A. & Buc H. Protein-DNA cross-linking at the lac UV5 promoter. *Nucl. Acids Res.* (1991) **19**, 833-840
10. Buckle, M., Buc, H. & Travers, A. A. DNA deformation in nucleoprotein complexes between RNA polymerase, cAMP receptor protein and the *lac*UV5 promoter probed by singlet oxygen. *EMBO J.* (1992) **11**, 2619-2625
11. Launay, J.-M., Geoffroy, C., Mutel,V., Buckle, M., Cesura, A., Alouf, J. & DaPrada,M. One-step purification of the serotonin transporter located at the human platelet plasma membrane. *J. Biol. Chem.* (1992) **267**, 11344-11351
12. Kolb, A., Igarashi, K., Ishihama, A., Lavigne, M., Buckle, M & Buc H. *E. coli* polymerase, deleted in the C-terminal part of its  $\alpha$  subunit, interacts differently with the cAMP-CRP complex at the *lac*P1 and at the *gal*P1 promoter. *Nucl. Acids Res.* (1993) **21**, 319-326
13. Perrin, A., Buckle, M. & Dujon, B. Asymmetrical recognition and activity of the SceI endonuclease on its site and on intron-exon junctions. *EMBO J.* (1993) **12**, 2939-2947
14. Doronin S.V., Dobrikov M.I., Buckle M., Roux P., Buc H. & Lavrik O.I. Affinity modification of human immunodeficiency virus reverse transcriptase and DNA template by photoreactive dCTP analogs. *FEBS Lett.* (1994) **354**, 200-202
15. Buckle M., Williams R. M., Negroni M. & Buc H. Real time measurements of elongation by a reverse transcriptase. *Proc. Natl. Acad. Sci. USA* (1996) **93**, 889-894.
16. Pemberton I, K, Buckle M. & Buc H. Metal ion-induced cooperative binding of HIV-1 integrase to DNA exhibits a marked preference for Mn(II) rather than Mg(II). *J. Biol. Chem.* (1996) **271**, 1498-1506
17. Brunel, F., Zakin, M.M., Buc, H. & Buckle, M. The polypyrimidine tract binding (PTB) protein is a highly specific single stranded DNA binding factor interacting with the adenovirus major late promoter initiator element. *Nucleic Acids Res.* (1996) **24**, 1608-1615
18. Pritsch O., Hudry-Clergeont G., Buckle M., Petillot Y., Bouvet J.-P., Gagnon J. & Dighiero G. Can immunoglobulin C<sub>H</sub>1 constant region domain modulate antigen binding affinity of antibodies ? *Clin. Invest.*(1996) **98**, 2235-2243
19. Diaw L., Magnac C., Pritsch O., Buckle M., Alzari, P. M. & Dighiero G. Structural and affinity studies of IgM polyreactive natural autoantibodies. *Journal of Immunology* (1997), **158**, (2) 968-976
20. Muskhelishvili G., Buckle M., Heumann H., Kahmann R., & Travers A.A., FIS activates sequential steps during transcription initiation at a stable RNA promoter. *EMBO Journal* (1997) **16**, 3655-3665
21. Pemberton I, K. Buc, H., & Buckle M. Displacement of viral DNA termini from stable HIV-1 integrase nucleoprotein complexes induced by secondary DNA-binding interactions. *Biochemistry* (1998) **37**, (8) 2682-2690
22. Kouznetzoff, A., Buckle, M. & Tordo N. Determination of the region of the rabies virus N protein involved in specific binding with the viral RNA. *J. of General Virology* (1998) **79**. (5) 1005-1013

23. Adelman K, Brody E N., & Buckle M. Stimulation of bacteriophage T4 middle transcription by the T4 proteins MotA and AsiA occurs at two distinct steps in the transcription cycle. *Proc. Natl. Acad. Sci. USA* (1998) **95**, (26) 15247-15252
24. Buckle M., Pemberton, I. K., Jacquet, M-A., & Buc, H. The sigma subunit of RNA Polymerase directs promoter recognition in *E. coli*. *J. Mol Biol* (1999) **285**, (3) 955-964
25. Place, C., Oddos, J., McAllister, W. T., Buc, H. & Buckle, M. Specific contacts and interactions between T7 RNA Polymerase and its promoter. *Biochemistry* (1999) **38**. 4948-4957.
26. Rovira, P. Buckle, M. Abastado J-P., Peumans W. J & Truffa-Bachi P. 'Major histocompatibility class I molecules present urtica dioica agglutinin, a superantigen of vegetal origin to T lymphocytes European' *Journal of Immunology* (1999) **29**, 1571-1580
27. Arluisson V., Buckle M. & Grosjean H, 'Pseudouridine Synthetase PUS1 of *Saccharomyces cerevisiae* : Kinetic Characterisation, tRNA Structural Requirement and Real-Time analysis of its Complex with tRNA.' *J. Mol Biol* (1999) **289**, 491-502
28. Pemberton, I.K. and Buckle, M. (1999) Real time in vitro analysis of transcription by RNA polymerase on immobilized DNA fibres. *Journal of Molecular Recognition*, **12**, 322-327.
29. Pemberton I. K., Muskhelishvili, G., Travers, A.A & Buckle, M. 'The G+C Rich Discriminator Region of the *tyrT* Promoter Antagonises the Formation of Stable Pre-Initiation Complexes' *J. Mol. Biol* 1999 **289**, 491-502
30. Chanfreau G. Buckle, M. Jacquier A. 'Recognition of a conserved class of RNA tetraloops by Yeast Rnase 111'. *Proc. Natl. Acad. Sci. USA* 2000 **97**: 3142-3147
31. Brodolin K, Buckle M. Differential melting of the transcription start site associated with changes in rna polymerase-promoter contacts in initiating transcription complexes. *J Mol Biol.* (2001) Mar 16;**307**(1):25-30.
32. Rimsky, S., Zuber, F., Buckle, M. & Buc, H. A Molecular Mechanism for the Repression of Transcription by the H-NS Protein. *Molecular Microbiology* (2001). **22** (5) 1311-1323
33. Valls M, Buckle M. de Lorenzo V. *In vivo* UV laser footprinting of the *Pseudomonas putida* sigma 54 Pu promoter reveals that integration host factor couples transcriptional activity to growth phase. *J Biol Chem.* (2002) **277**(3):2169-75.
34. Brodin P, Pinskaya M, Buckle M. Parsch U, Romanova E, Engels J, Gottikh M, Mouscadet JF. Disruption of HIV-1 integrase-DNA complexes by short 6-oxocytosine-containing oligonucleotides. *Biochemistry.* (2002) Feb 5;**41**(5):1529-38.
35. Pemberton I K., Muskhelishvili G., Travers, A. A and Buckle M. FIS Modulates the Kinetics of Successive Interactions of RNA Polymerase with the Core and Upstream Regions of the *tyrT* Promoter. *J.Mol.Biol.* (2002) **318** (3):651-663.
36. Ghochikyan, A., Karaivanova, I. M, Lecocq, M, Vusio P, Arnaud, M. C. Snapyan, M Weigel, P, Guevel, L; Buckle, M and Sakanyan, V. Arginine Operator Binding by Heterologous and Chimeric ArgR Repressors from *Escherichia coli* and *Bacillus stearothermophilus*. *J.Bacteriol.* (2002) **184** (23):6602-6614,.
37. Helge Auner, Malcolm Buckle, Annette Deufel, Tamara Kutateladze Linda Lazarus, Ramesh Mavathur, Georgi Muskhelishvili, Iain Pemberton, Robert Schneider and Andrew Travers Mechanism of Transcriptional Activation by FIS: Role of Core Promoter Structure and DNA Topology *J. Mol. Biol.* (2003) **331**, 331–344.
38. Buckle M. DNA-Binding Proteins: LC-MS to Identify Key Domains in RNA Polymerase-Promoter Interactions. *Methods Mol Biol.* (2004); **251**: 351-64.

39. Orsini Gilbert, Igonet S ébastien, P ène Carole, Sclavi Bianca, Buckle Malcolm, Uzan Marc and Kolb Annie. Phage T4 early promoters are resistant to inhibition by the anti-sigma factor AsiA *Molecular Microbiology* (2004) **52**(4):1013-28.
40. Malygin, Ernst G., Sclavi, Bianca, Zinoviev, Victor V, Evdokimov, Alexey A. Hattman Stanley and Buckle Malcolm. Bacteriophage T4Dam DNA-[adenine-N6] methyltransferase comparison of pre-steady state and single turnover methylation of 40mer duplexes containing two (un)modified target sites *JBC* (2004) **279** (48) 50012-50018
41. Font Marie-Pierre, Dombret Herv é Cubizolles Myriam, Cazes Lucien Sarun Sukhena, Brenac Virginie, Sigaux Fran çois and Buckle Malcolm. Repression of transcription at the human T-cell receptor V $\beta$ 2.2 segment is mediated by a MAX/MAD/mSin3 complex acting as a scaffold for HDAC activity. (2004) *Biochemical and Biophysical Research Communications*. **325** (2004) 1021–1029
42. Sclavi Bianca, Zaychikov Evgeny, Rogozina Anastasia, Walther Ferdinand, Buckle Malcolm, Heumann Hermann Kinetic analysis of promoter recognition by RNA polymerase by time resolved hydroxyl radical footprinting. (2005) *Proc Natl Acad Sci U S A*. 102(13):4706-11
43. Lambert B. and Buckle M. Characterisation of the interface between Nucleophosmin (NPM) and p53: potential role in p53 stabilisation. *FEBS Letters* 580 (2006) 345–350
44. Joanna L. Parish, Anna Kowalczyk, Hsin-Tien Chen, Geraldine E. Roeder, Richard Sessions, Malcolm Buckle, and Kevin Gaston. E2 Proteins from High- and Low-Risk Human Papillomavirus Types Differ in Their Ability To Bind p53 and Induce Apoptotic Cell Death (2006) *Journal of Virology*, 80 (9). 4580–4590.
45. Emeline Bouffartigues, Herv éLeh, Marielle Anger-Leroy, Sylvie Rimsky and Malcolm Buckle, Rapid coupling of Surface Plasmon Resonance (SPR and SPRi) and ProteinChip™ based mass spectrometry for the identification of proteins in nucleoprotein interactions. (2007) *Nucleic Acids Research*. 2007;35(6):e39. Epub 2007 Feb 7.
46. Rimsky S and Buckle M. Protein-DNA Interactions in "Proteins: from Analytics to Structural Genomics", (2007) (ed. R. A. Meyers) Wiley-VCH vol 1 pp347-376.
47. Victor V. Zinoviev, Alexey A. Evdokimov, Ernst G. Malygin, Bianca Sclavi, Malcolm Buckle and Stanley Hattman. Differential methylation kinetics of individual target site strands by T4Dam DNA methyltransferase. *Biological Chemistry* 2007 Nov;388(11):1199-207
48. Alexey A. Evdokimov, Bianca Sclavi, Victor V. Zinoviev, Ernst G. Malygin, Stanley Hattman and Malcolm Buckle, Bacteriophage T4 Dam DNA-(Adenine-N6)-methyltransferase: study of enzyme-substrate binding by rapid laser UV crosslinking. *J. Biol. Chem.* (2007) Sep 7; 282(36):26067-76. Epub 2007 Jul 13.
49. Emeline Bouffartigues, Cyril Badaut, Andrew Travers, Malcolm Buckle and Sylvie Rimsky High affinity sites direct the cooperative binding of H-NS to a regulatory element required for transcriptional silencing. *Nature Struct. Mol. Biol* (2007) May; 14(5):441-8. Epub 2007 Apr 15.
50. Bianca Sclavi, Christine M. Beatty, David S. Thach, Christine E. Fredericks, Malcolm Buckle, and Alan J. Wolfe. The Multiple Roles of CRP at the Complex *acs* Promoter Depend on Activation Region 2 and a Double Role for IHF. *Mol Microbiol.* (2007) Jul; 65(2):425-40.
51. Benjamin Lang, Nicolas Blot, Emeline Bouffartigues, Malcolm Buckle, Marcel Geertz, Claudio Gualerzi, Ramesh Mavathur, Georgi Muskhelshvili, Cynthia Pon, Sylvie Rimsky, Stefano Stella, M. Madan Babu, Andrew Travers High affinity DNA binding



- sites for H-NS provide a molecular basis for selective silencing within proteobacterial genomes. *Nucleic Acids Res.* 2007;35(18):6330-7. Epub 2007 Sep 18.
52. Malcolm Buckle. Plasmon Resonance revisited. *Bioworld Europe* (2008) 01. Pp18-21.
  53. Soufi A, Noy P, Buckle M, Sawasdichai A, Gaston K, Jayaraman PS. Sheela CK2 phosphorylation of the PRH/Hex homeodomain functions as a reversible switch for DNA binding. *Nucleic Acids Res.* (2009) Jun;37(10):3288-300
  54. Prieto I, Kouznetsova A, Fütterer A, Trachana V, Leonardo E, Alonso Guerrero A, Cano Gamero M, Pacios-Bras C, Leh H, Buckle M, Garcia-Gallo M, Kremer L, Serrano A, Roncal F, Albar JP, Barbero JL, Martínez-A C, van Wely KH. Synaptonemal complex assembly and histone trimethylation determine DDO3 localization in meiosis Chromosoma. (2009) Oct;118(5):617-32. Epub 2009 Jun 26
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