Curriculum Vitae

Prof. Luigi E. Xodo

Born on November 7th, 1952 at Donada (Rovigo), Italy;
Laurea in Chemistry 15-12-1976 at the University of Trieste, Italy;
Military Service, 09/1977-09/1978 (Tarvisio, Italy);
Research fellow at the University of Reading (UK) 1979
Research fellow at the University of Guildford (UK):1980;
Faculty Member, University of Trieste: 1983-1992;
Associate Professor (Biochemistry), University of Trieste: 1992-1997;
Associate Professor (Biochemistry), University of Udine: 1997-2003;
Full Professor (Biochemistry), University of Udine, from 2003 up to now;
Lecturer of the course "Medical Biochemistry" for medical students since 1997/1998;
Board Member of the PhD Program in Medical and Biotechnological Sciences.
Head of Biochemistry Laboratory at the Department of Medicine of Udine;
Member Editorial Advisory Panel of "Scientific Reports" (Nature);
Regular "Peer reviewing" activity for Nucleic Acids Research (Oxford Press), J. Medicinal Chemistry (ACS); J. American Chemical Society (ACS), Scientific Reports…
Author of 120 publications (in PubMed/Web of Science),
Number of citations 5443 (Google Scholar); h-index= 41, i10-index=94
ORCID: https://orcid.org/0000-0003-3344-7207
Holder of Research Funds from AIRC "Italian Association for Cancer Research", PRIN and FVG:

AIRC: IG 2007-2009 "Characterization of a regulatory cis-element of oncogenic KRAS and strategies to down-regulate transcription", (114.000 euro), Progetto Triennale (2007-2009);

AIRC: IG 2010-2012 "Molecular targeting of oncogenes: rationale design of anticancer drugs directed against KRAS", (105.000 euro), Progetto Triennale (2010-2012);

AIRC: IG 2013-2015: "Epigenetic modifications in gene regulation: effect of 8-oxoguanine on KRAS transcription in pancreatic cancer cells", (150.000 euro), Progetto Triennale (2013-2015);

AIRC: IG 2017-2022 "Epigenetic modifications in gene regulation: effect of 8-oxoguanine on KRAS transcription in pancreatic cancer cells", (370.000 euro), Progetto Quinquennale (2017-2022);

PRIN 1999-2001: (101.429.000 lire), "Oligonucleotides and molecular strategies to study and control neoplastic cell progression"; progetto biennale, responsabile Unità di ricerca di Udine;

PRIN 2001-2003 (62.000 euro), "Use of antigene and antisense effector molecules for the control of tumor cell proliferation: oligonucleotides conjugated to polyethylene glycol", progetto biennale, responsabile Unità di ricerca di Udine;

PRIN 2005-2007 (71500 euro), "Use of PNA-DNA oligonucleotides conjugated to PEG in molecular strategies against protein targets", progetto biennale, responsabile Unità di ricerca di Udine;

PRIN 2008-2010 (88858 euro), "Formation of G-quadruplex structures in the promoter of the KRAS oncogene and their involvement in transcription regulation", progetto biennale, responsabile Unità di ricerca di Udine;

PRIN 2011-2013 (52000 euro), "Development oif G4 decoy oligonucleotides with potent antiproliferative activity specific for the human KRAS and HRAS genes". progetto biennale, responsabile Unità di ricerca di Udine;

PRIN 2023-2025 (277.000 euro per tre gruppi di ricerca) "Design, synthesis and investigations on new G-quadruplex aptamers against STAT3 and the interleukine-6 receptor (G4-APTASTAT)"; progetto biennale, responsabile Unità di ricerca di Udine;

FVC (Friuli Venezia Giulia) da 1-06-2008 a 30-09-2011, (55000 euro UniUd; 27000 euro UniTs); Titolare del progetto congiunto Università di Udine e Università di Trieste "Sviluppo di nuovi farmaci per la terapia fotodinamica del cancro" (codice 200501822001).

International Collaborations active:

- **Prof. Gilmar Salgado**, Laboratoire d'Optique et Biosciences, Ecole Polytechnique, CNRS, INSERM, Institut Polytechnique de Paris, Route de Saclay, Palaiseau Cedex 91128, France.
- **Prof. Stefan Vogel**, Department of Physics, Chemistry and Pharmacy, University of Southern Denmark, Odense, Denmark.
- **Prof. Andrey Shchekotikhin**, Gause Institute of New Antibiotics, B. Pirogovskaya 11, 119021 Moscow, Russia.
- **Prof. Erik Pedersen**, Nucleic Acid Center, Institute of Physics and Chemistry, University of Southern Denmark, DK-5230 Odense, Denmark;
- **Prof. Sara Richter,** Department of Molecular Medicine, University of Padua, 35121 Padua, Italy.

Luigi Xodo has attended many international meetings, mainly as invited speaker

Publications

1. M.H.Abraham, **L.E.Xodo**, R.J.Abraham, M.J.Cook. A direct experimental and theoretical study of solvent effects on the equilibrium between trans cis and trans tran 1,2-dibromo-4-butylcyclohexanes. *Tetrahedron Letters* (1981) **22**, 5183-5186.

2. M.J.Cook, M.H.Abraham, **L.E.Xodo**, R.Cruz. Empirical determination of medium effects on the equilibrium between trans cis and trans trans 1,2-dibromo-4-t- butylcyclohexanes. *Tetrahedron Letters* (1981) **22**, 2991-2994.

3. M.H.Abraham, **L.E.Xodo**, M.J.Cook, R.Cruz.Solvent and gas-phase effects on the equilibrium between configurational isomers of some 4-t-butylcyclohexanes. *J. Chem. Soc. Perkin Trans. II* (1982) 1503-1509.

4. M.L.Barcellona, G.Manzini, **L.E.Xodo**, N.Ragusa, M.Avitabile, F.Quadrifoglio.Interaction of DAPI with natural and synthetic polyribonucleotides: calorimetric measurements. *The Italian Journal of Biochemistry* (1985) **34**, 467-470.

5. G.Manzini, **L.E.Xodo**, M.L.Barcellona, F.Quadrifoglio. Interaction of 4'-6-diamidino-2-phenylindole.2HC1 with synthetic and natural deoxy- and ribonucleic acids. *Journal of Biosciences* (1985) **8**, 699-711.

6. G. Manzini, **L.E. Xodo**, M.L. Barcellona, F. Quadrifoglio. Interaction of DAPI with double stranded ribonucleic acids. *Nucleic Acids Research* (1985) **13**, 8955-8967.

7. **L.E.Xodo**, G.Manzini, F.Quadrifoglio, G.A.van der Marel, J.H. van Boom.Thermodynamic behaviour of the heptadecadeoxynucleotide d(CGCGCGTTTTTCGCGCG) forming B and Z hairpins in aqueous solution. *Nucleic Acids Research* (1986) **14**, 5389-5398.

8. G.Manzini, **L.E.Xodo**, F.Quadrifoglio, J.H.van Boom, G.H.van der Marel.dC-dG alternating oligonucleotides: thermodynamic and kinetic aspects of the B-Z transformation. *Journal of Biomolecular Structure & Dynamics* (1987) **4**, 651-662.

9. Base specificity in the interaction of ethidium with synthetic polyribonucleotides. Y.Babayan, G.Manzini, **L.E.Xodo**, F.Quadrifoglio. *Nucleic Acids Research* (1987) **15**, 5803-5812.

10. **L.E.Xodo**, G.Manzini, J.Ruggiero, F.Quadrifoglio. Base specificity in the interaction of daunomycin with synthetic polynucleotides. *Biochemical Pharmacology* (1988) **37**, 1867-1868.

11. **L.E.Xodo**, G.Manzini, G.H.van der Marel, J.H.van Boom, F. Quadrifoglio. Oligodeoxynucleotide folding in solution. Loop size and stability of B-hairpins. *Biochemistry* (1988) **27**, 6321-6326.

12. **L.E.Xodo,** G.Manzini, G.H.van der Marel, J.H.van Boom, F. Quadrifoglio.The B-Z conformational transition in folded oligodeoxynucleotides: loop size and stability of Z-hairpins. *Biochemistry* (1988) **27**, 6327-6331.

13. **L.E.Xodo**, G.Manzini, J.Ruggiero, F.Quadrifoglio. On the interaction of daunomycin with natural and synthetic DNAs: sequence specificity and polyelectrolyte effects on the intercalation process. *Biopolymers* (1988) **27**, 1839-1857.

14. **L.E. Xodo**, G.Manzini, G.H.van der Marel, J.H.van Boom, F. Quadrifoglio.The duplex-hairpin conformational transition of d(CGCGCGATCG-CGCG) and d(CGCGCGTACGCGCG): a kinetic and thermodynamic study. *Journal of Biomolecular Structure & Dynamics* (1988) **6**, 139-152.

15. Y.Babayan, **L.E.Xodo**, G.Manzini. Netropsin does not bind to the oligodeoxynucleotide d(CGGTACGC) *Biofizica* (1988) **4**, 716-717.

16. G.Manzini, **L.E.Xodo**, N.Yathindra, F.Quadrifoglio.Sequence effects on the energetics of the duplex-hairpin-coil conformational transitions in palindromic oligodeoxynucleotides. *The Italian Journal of Biochemistry* (1989) 145-148.

17. **L.E. Xodo**, G.Manzini, F.Quadrifoglio, N.Yathindra, G. A.van der Marel, J.H.van Boom.A facile duplex-hairpin interconversion through a cruciform intermediate in a DNA fragment. *Journal of Molecular Biology* (1989) **205**, 777-781.

18. **L.E.Xodo**, G.Manzini, F.Quadrifoglio, N.Yathindra, G. A.van der Marel, J.H. van Boom. The left-handed Z-DNA conformation in oligodeoxynucleotides containing different amounts of AT base pairs: a far UV circular dichroism study. *Journal of Biomolecular Structure & Dynamics* (1989) **6**, 1217-1231.

19. **L.E.Xodo**, G.Manzini, F.Quadrifoglio, G.A.van der Marel, J.H. van Boom.Hairpin structures in synthetic oligodeoxynucleotides: sequence effects on the duplex-hairpin interconversion. *Biochimie* (1989) **71**, 793-803.

20. **L.E.Xodo**, G.Manzini. Use of oligodeoxynucleotides as simple models for studying the polymorphysm of DNA. *Italian Journal of Biochemistry* (1990) **6**, 395-400.

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23. **L. E. Xodo**, G.Manzini and F.Quadrifoglio. Spectroscopic and calorimetric investigation on the DNA triplex formed by d(CTCTTCTTTCTTTTCTTTCTTCTC) and d(GAGAAGAAAGA) at acidic pH. *Nucleic Acids Research* (1990) **18**, 3557-3564.

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Luigi E. Xodo, Doroti Pirulli, F. Quadrifoglio
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Eleonora Marsich, **Luigi E. Xodo**, Giorgio Manzini
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Luigi E. Xodo, Giorgio Manzini, Franco Quadrifoglio
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Luigi E. Xodo, Elisa Del Terra, Bruna Scaggiante, Giorgio Mnazini, Franco Quadrifoglio
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C. Morassuti, B. Dapas, B. Scaggiante, G. Paroni, **L. E. Xodo** F. Quadrifoglio
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Romina Floris, Bruna Scaggiante, Giorgio Manzini, Franco Quadrifoglio, **Luigi E. Xodo**
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C. Morassutti, B. Scaggiante, **L.E.Xodo**, B.Dapas, G.Paroni, G.Tolazzi, F.Quadrifoglio
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Carla Morassutti, Bruna Scaggiante, Barbara Dapas, **Luigi E.Xodo**, Gianluca Tell and Franco Quadrifoglio
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Susanna Cogoi, Valentina Rapozzi, Franco Quadrofoglio and **Luigi E.Xodo**
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M. Ballico, S. Drioli, F. Morvan, **L.E.Xodo**, GM. Bonora
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Biochemistry (2002) **41**, 502-510.

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V. Rapozzi, B.Burm, S. Cogoi, G. van der Marel, J. van Boom, F. Quadrifoglio**, L.E.Xodo**
Nucleic Acids Research (2002) **30**, 3712-2721.

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