

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name	Dessi, Alessandro , N. MATR. CNR 4102 ORCID orcid.org/0000-0001-8258-7332
Address	ISTITUTO DI CHIMICA BIOMOLECOLARE, ICB CNR, SEDE SECONDARIA – SASSARI TRAVERSA LA CRUCCA, 3 – REGIONE BALDINCA, LI PUNTI, 07100 SASSARI (IT)
Telephone	office: +39 079 2841214
E-mail	alessandro.dessi@cnr.it
Nationality	Italian
Place and Date of birth	AUGUST, 19 TH 1960 IN SASSARI (IT)

WORK EXPERIENCE

- | | |
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| <ul style="list-style-type: none">• 2002 - to date | |
| <ul style="list-style-type: none">• Name and address of employer• Occupation or position held | Consiglio Nazionale delle Ricerche, ICB
Collaboratore Tecnico Enti di Ricerca, (C.T.E.R.) IV livello |
| <ul style="list-style-type: none">• Main activities and responsibilities | Member of the group of bioinformatic and molecular modelling at the ICB, research activity. |
| <ul style="list-style-type: none">• 1984 - 2002 | |
| <ul style="list-style-type: none">• Name and address of employer• Occupation or position held | Consiglio Nazionale delle Ricerche, Istituto per l'Applicazione delle Tecniche Chimiche Avanzate
ai Problemi Agrobiologici
Collaboratore Tecnico Enti di Ricerca |
| <ul style="list-style-type: none">• Main activities and responsibilities | <i>Chemistry of transition metal ions (copper, vanadium, cobalt, nickel) and their interactions with ligands of low molecular weight, investigated through spectroscopic and chromatographic techniques.</i> |

EDUCATION AND TRAINING

- | | |
|---|--|
| <ul style="list-style-type: none">• 1980 | |
| <ul style="list-style-type: none">• Name and type of organisation providing education and training• Title of qualification awarded | Istituto Tecnico Industriale G.M. Angioy

Diploma Perito Industriale Capotecnico, specializzazione: Chimica Industriale |

PERSONAL SKILLS AND COMPETENCES

*Acquired in the course of life and career
but not necessarily covered by formal
certificates and diplomas.*

MOTHER TONGUE

ITALIAN

OTHER LANGUAGES

ENGLISH

- Reading skills
- Writing skills
- Verbal skills

good

good

good

ENGLISH (CAE, CAMBRIDGE ASSESSMENT 186IT0305026, LEVEL C1)

good

good

good

ORGANISATIONAL SKILLS AND COMPETENCES

*Coordination and administration of
people, projects and budgets*

MEMBER OF THE GROUP OF BIOINFORMATICS AND MOLECULAR MODELLING AT THE ICB

Research activity in collaboration with various research groups belonging to the Institute of Biomolecular Chemistry, as well as national and international groups in the frame of projects where the expertise of molecular modeling, virtual screening, docking and molecular dynamics is requested.

The research interest is focused mainly on molecular modelling performed by computer facilities. The computational modelling can be applied to chemical-biological and pharmaceutical system, adaptation-generation graphical user interfaces for the use of the various processing programs, the design and simulation of new bioactive molecules with similar mechanism of action (structure-based drug design) and finally the analysis of calculated data and pharmacological activities. The calculation concerns the molecular dynamics, quantum mechanics, ab-initio calculation, docking and virtual screening of ligands and macromolecules of biological interest. In particular:

1. the interface between chemistry, biology and computational sciences, whose aim is to improve understanding of the dynamics of the association of molecules, molecular transitions of proteins and nucleic acids and their interactions with organic molecules of low molecular weight.
2. design and simulation of new bioactive molecules with similar mechanism of action (structure-based drug design) through methods of molecular dynamics which lead compound pharmacological, conformational analysis of organic ligands with molecular mechanics methods and ab-initio calculation of structures synthesis.
3. studies of virtual screening and docking relating to possible models antiviral HIV-1 Integrase, Endonuclease, Carbonic Anhydrase, Tyrosinase and Laccase.

TECHNICAL SKILLS AND COMPETENCES

*With computers, specific kinds of
equipment, machinery, etc.*

COMPETENCES AND SKILLS Molecular modelling, Virtual Screening, Docking, Molecular dynamics, SAR and QSAR analysis, Molecular descriptors, Applications of molecular modelling for drug design, Molecular modelling of pharmaceuticals and biologically active compounds.

Generation and adaptation of graphical interfaces for the use of different processing programs. Software expertise: Gaussian 09W, GaussView 5.0, Amber 18, Autodock 4.2, VINA, Macromodel 5.5, Sybyl 6.2, VMD 1.9, Python 3.2, ChemBioOffice 2012, Chimera 1.8.1, MGLTools 1.5.7

OTHER SKILLS AND COMPETENCES

Competences not mentioned above.

MAIN COLLABORATIONS Università degli Studi di Sassari, Dipartimento di Chimica e Farmacia, Paola Peluso, Mario Sechi, Roberto Dallochio, Barbara Sechi