


**UNIVERSITÀ
di VERONA**

 Dipartimento
di INFORMATICA

 Consiglio di Dipartimento del
10 dicembre 2025

**DELIBERA ASSUNTA NEL CONSIGLIO DI DIPARTIMENTO DI INFORMATICA
DEL 10 DICEMBRE 2025**
SEDUTA RISERVATA ALLA I, II FASCIA
Punto 02 all'ordine del giorno

Proposta di proroga di un anno del contratto del Ricercatore a tempo determinato di tipo a) Dott. Matteo Mantovani - SSD INFO/01-A Informatica - in scadenza il 28 febbraio 2026 - da rinnovare su fondi esterni - responsabile scientifico prof. Carlo Combi - con conseguente proposta di nomina della commissione di valutazione

Componenti:

N.	Rif.	NOMINATIVO	
1	Prof.ssa Ordinaria	Angeleri Lidia	P
2	Prof.ssa Ordinaria	Bonacina Maria Paola	P
3	Prof. Ordinario	Caliari Marco	P
4	Prof. Ordinario	Carra Damiano	P
5	Prof. Ordinario	Castellani Umberto	AG
6	Prof. Ordinario	Cicalese Ferdinando	AG
7	Prof. Ordinario	Combi Carlo	P
8	Prof. Ordinario	Dai Pra Paolo	P
9	Prof.ssa Ordinaria	Dalla Preda Mila	AG
10	Prof. Ordinario	Farinelli Alessandro	P
11	Prof. Ordinario	Giacobazzi Roberto	ASP
12	Prof.ssa Ordinaria	Giugno Rosalba	AG
13	Prof. Ordinario	Marigonda Antonio	AG
14	Prof. Ordinario	Masini Andrea	P
15	Prof. Ordinario	Merro Massimo	P
16	Prof. Ordinario	Murino Vittorio	P
17	Prof. Ordinario	Orlandi Giandomenico	P
18	Prof.ssa Ordinaria	Quintarelli Elisa	P
19	Prof. Ordinario	Rizzi Romeo	AG
20	Prof. Ordinario	Romeo Alessandro	P
21	Prof. Ordinario	Schuster Peter Michael	AG
22	Prof. Ordinario	Segala Roberto	AG
23	Prof. Associato	Albi Giacomo	AG
24	Prof. Associato	Baldo Sisto	P
25	Prof. Associato	Belussi Alberto	AG
26	Prof.ssa Associata	Beyan Cigdem	AG
27	Prof. Associato	Bicego Manuele	AG
28	Prof. Associato	Canevari Giacomo	AG
29	Prof. Associato	Castellini Alberto	P
30	Prof. Associato	Ceccato Mariano	AG
31	Prof.ssa Associata	Collet Francesca	P
32	Prof. Associato	Cristani Matteo	P

 LA SEGRETARIA
Sig.ra Aurora Miorelli

(firmato digitalmente)

 IL PRESIDENTE
Prof. Alessandro Farinelli

(firmato digitalmente)



33	Prof. Associato	Daducci Alessandro	CG
34	Prof.ssa Associata	Daffara Claudia	P
35	Prof. Associato	Di Persio Luca	AG
36	Prof.ssa Associata	Di Pierro Alessandra	P
37	Prof.ssa Associata	Franco Giuditta	AG
38	Prof.ssa Associata	Gaburro Elena	AG
39	Prof. Associato	Gregorio Enrico	A
40	Prof.ssa Associata	Laking Rosanna Davison	P
41	Prof.ssa Associata	Liptak Zsuzsanna	AG
42	Prof.ssa Associata	Mantese Francesca	AG
43	Prof.ssa Associata	Mastroeni Isabella	P
44	Prof.ssa Associata	Monti Francesca	AG
45	Prof.ssa Associata	Oliboni Barbara	P
46	Prof.ssa Associata	Paci Federica Maria Francesca	AG
47	Prof. Associato	Posenato Roberto	P
48	Prof. Associato	Quaglia Davide	AG
49	Prof. Associato	Sala Pietro	P
50	Prof. Associato	Sansonetto Nicola	AG
51	Prof. Associato	Spoto Nicola Fausto	AG
52	Prof.ssa Associata	Zorzi Margherita	AG

LEGENDA:

P	Presente
AG	Assente giustificato
A	Assente
ASP	In aspettativa
CG	In congedo



2. Proposta di proroga di un anno del contratto del Ricercatore a tempo determinato di tipo a) Dott. Matteo Mantovani - SSD INFO/01-A Informatica - in scadenza il 28 febbraio 2026 - da rinnovare su fondi esterni - responsabile scientifico prof. Carlo Combi - con conseguente proposta di nomina della commissione di valutazione

Il Direttore ricorda che il contratto di Ricercatore a tempo determinato tipo a) del Dott. Matteo Mantovani scadrà il 28 febbraio 2026 e pertanto il Consiglio è chiamato ad esprimersi sulla opportunità di avanzare una richiesta motivata di proroga.

Il Direttore lascia la parola al prof. Carlo Combi, che illustra l'attività didattica e di ricerca svolta dal Dott. Matteo Mantovani, il cui contratto è in scadenza il 28 febbraio 2026.

Il prof. Combi collabora con i professori Trifirò e Moretti del Dipartimento di Diagnostica e Sanità Pubblica. I temi di ricerca della collaborazione con i proff. Trifirò e Moretti riguardano l'ambito della gestione e dell'analisi di dati di farmacologia e farmacovigilanza. In tali ambiti, il tema di ricerca affrontato all'interno del progetto di ricercatore a tempo determinato di tipo a) e le competenze scientifiche del dott. Mantovani sono perfettamente coerenti con l'analisi dei dati in ambito farmacologico mediante tecniche di intelligenza artificiale distribuite (swarm learning). Tali tecniche consentiranno analisi multicentriche avanzate, garantendo un'elevata protezione dei dati. La temporalità di tali dati costituirà un ulteriore aspetto considerato nella ricerca.

La linea di ricerca delineata è dunque in continuità sia con il progetto di ricerca del dottor Mantovani sia con i precedenti progetti sviluppati in collaborazione fra i gruppi di ricerca dei professori Combi, Moretti e Trifirò. Di seguito sono indicate alcune pubblicazioni relative a tali collaborazioni.

- Salvatore Crisafulli, Andrea Fontana, Luca L'Abbate, Giacomo Vitturi, Alessia Cozzolino, Daniele Gianfrilli, Maria Cristina De Martino, Beatrice Amico, Carlo Combi, Gianluca Trifirò: Machine learning-based algorithms applied to drug prescriptions and other healthcare services in the Sicilian claims database to identify acromegaly as a model for the earlier diagnosis of rare disease. Scientific Reports 14(1): 1-13 (2024)
- Carlo Combi, Margherita Zorzi, Gabriele Pozzani, Elena Arzenton, Ugo Moretti: Normalizing Spontaneous Reports Into MedDRA: Some Experiments With MagiCoder. IEEE J. Biomed. Health Informatics 23(1): 95-102 (2019)
- Carlo Combi, Margherita Zorzi, Gabriele Pozzani, Ugo Moretti, Elena Arzenton: From narrative descriptions to MedDRA: automatically encoding adverse drug reactions. J. Biomed. Informatics 84: 184-199 (2018)
- Carlo Combi, Matteo Mantovani, Alberto Sabaini, Pietro Sala, Francesco Amaddeo, Ugo Moretti, Giuseppe Pozzi: Mining approximate temporal functional dependencies with pure temporal grouping in clinical databases. Comput. Biol. Medicine 62: 306-324 (2015)

Il prof. Moretti nell'ambito di un progetto di cui è titolare ha destinato Euro 57.261,40 per la proroga del contratto di RTD-A del Dott. Matteo Mantovani, il quale possiede le competenze per lo svolgimento delle attività previste.

Dopo la relazione del prof. Combi, il Direttore chiede al Consiglio di approvare la richiesta di proroga annuale con vincolo della spesa necessaria sul budget di un progetto gestito dal prof. Ugo Moretti, oggetto di apposita delibera in discussione in data odierna nel Consiglio del Dipartimento di Diagnostica e Sanità Pubblica.

Il Consiglio approva all'unanimità

Per quanto riguarda i nominativi dei Componenti la Commissione di valutazione, il comma 5 dell'art. 12 del regolamento dei Ricercatori a TD dispone che la commissione è composta da 3 componenti esclusivamente esterni all'ateneo.

I Commissari devono appartenere al ruolo dei professori Universitari ed essere in possesso di questi requisiti:

- i componenti devono possedere specifiche competenze scientifiche nel settore di ricerca interessato e, nel caso di Commissari nazionali, devono appartenere allo specifico settore scientifico disciplinare o, dove non sia possibile, al settore concorsuale;
- i componenti devono aver svolto attività continuativa di ricerca preferibilmente anche a carattere internazionale nei 5 anni precedenti e, ove applicabile, devono rispettare i requisiti previsti dai commi 7 e 8 dell'articolo 6 della legge 240/10 e dalla normativa vigente;
- per la nomina della Commissione giudicatrice si osservano le norme in materia di incompatibilità e conflitto di interessi e quelle previste nel Codice etico. In particolare, i componenti della Commissione non possono essere stati relatori ovvero non devono aver ricoperto un qualsiasi ruolo formalmente riconosciuto relativo alle tesi di laurea o di dottorato dei candidati e non devono essere coautori con il candidato.

Ai sensi della raccomandazione della Commissione delle Comunità Europee n. 251 dell'11 marzo 2005, nella costituzione della Commissione deve essere garantito, laddove possibile, un adeguato equilibrio di genere.

Il Direttore, in conformità a quanto previsto dal Regolamento citato, propone il seguente nominativo:

- **Prof. Vincenzo Bonnici**, professore associato, SSD INFO-01/A, Università di Parma

la cui competenza scientifica si evince dal curriculum vitae allegato al presente verbale (**allegato n. 23**).

Il Direttore informa infine che la Commissione dovrà concludere i propri lavori entro un mese dalla nomina.

Il Consiglio **esprime parere favorevole** alla designazione del **prof. Vincenzo Bonnici** quale componente della Commissione di valutazione per la procedura valutativa del ricercatore a tempo determinato di tipo a) Dott. Matteo Mantovani SSD INFO-01/A Informatica, al fine della proroga per un ulteriore anno.



Firmato digitalmente da:
FARINELLI ALESSANDRO
Firmato il 12/12/2025 13:58
Seriale Certificato: 3879987
Valido dal 27/09/2024 al 27/09/2027
InfoCamere Qualified Electronic Signature CA

Matteo Mantovani

Activity Report - RTDA Position

University of Verona	Phone: (+39) 3405602250
Department of Computer Science	Email: matteo.mantovani@univr.it
Strada le Grazie, 15 37134 Verona (VR) - Italy	Linkedin: linkedin.com/in/mantovanimatteo/

Research Activities

During my period as assistant professor, the main research interests are in the field of **distributed learning and process-driven applications**, with a particular focus on the healthcare domain. As far as the first topics is concerned, the goal is to create a distributed learning framework simultaneously addressing the need for distributed network with large medical datasets while ensuring confidentiality and privacy-preserving requirements. This framework allows users to train the models locally on private data at the individual sites (distributed nodes) and to share only model parameters via the distributed network. Furthermore, the research examines the scalability of the learning network, assessing how network performance is influenced by the number of participating nodes and the characteristics of their data.

This investigation is motivated by the intrinsic challenges of multi-centric clinical environments, where direct data sharing across institutions is often restricted by privacy regulations, ethical considerations, and logistical constraints.

In this setting, my focus is on the **swarm learning** and **federated learning techniques**, as they support collaborative model development while maintaining data sovereignty at each site. Thus, the study explores the advantages of integrating heterogeneous clinical information distributed across multiple centers without compromising patient confidentiality.

In particular, I focused on the performance of the distributed network based on different data-distribution and overall nodes scenarios using the intensive care data from the MIMIC-III[2] and MIMIC-IV[1] datasets.

In [C.2], the objective was to introduce new Key Performance Indicators (KPIs) to assess how different data-distribution scenarios affect a reference node already integrated into a swarm network. The analysis quantifies the benefits obtained both by the network as a whole and by the reference node when varying the number of participating nodes and their respective data distributions.

In [J.1], we wanted to investigate the impact of an external node on an existing swarm learning network, considering different data-distribution scenarios and with a variable number of nodes. To properly evaluate this impact, we proposed several KPIs that analyzed the ICU data, the model stability, the feature distribution, and more indicators.

Finally, my research also focuses on **process-driven applications**, in which activities and tasks are modeled using the Business Process Model and Notation (BPMN). This approach is particularly relevant in healthcare, as it supports the formalization of clinical pathways and promotes the active involvement of clinicians in the design phase. BPMN serves as a common representation that can be easily understood by both medical experts and developers, and it provides a basis for iterative modeling, testing, and refinement of processes. Involving clinicians from the earliest stages allows

us to apply agile methodology principles, enabling them and developers to work iteratively from the initial design to digital mockups of the system, using process models as a shared reference to discuss, test, and refine requirements. An example can be found in *Fit to Fight*, a BPM-based platform to support activities for patients waiting for pancreatic surgery [C.1], developed with the direct involvement of the *Verona Pancreas Institute*, the first interdisciplinary center of excellence for diagnosing and treating pancreatic diseases in Italy. *Fit to Fight* also served as a case study to define a migration framework to be used when patients are reassigned from one clinical pathway to another due to a change in their clinical conditions. The migration framework includes different techniques to “compensate” for the required changes, ensuring continuity of care while maintaining the coherence of the underlying process model [C.3]. Another example is represented by Blood pressure Easy Access Telemedicine *BEAT* [C.4], an agile framework for telemedicine in hypertension. It integrates BPMN to formalize clinical workflows for both synchronous and asynchronous scenarios, and it includes digital mock-ups to create intuitive user interfaces and a robust database schema to store and manage temporally evolving clinical data. *BEAT* adopts the agile methodology principles, involving clinicians from the *Italian Society of Hypertension* to provide iterative refinement through their feedback, and to ensure the alignment with real-world requirements. .

The research is supported by grant “*European Union—NextGenerationEU through the Italian Ministry of University and Research under PNRR—M4C2-I1.3 Project PE_00000019 “HEAL ITALIA” to the authors CUP B33C22001030006*”

Research Groups Membership

2023 - Present	University of Verona - Department of Computer Science Member of the “HEAL ITALIA” group - Official website SPOKE 2 Intelligent health - Health Data Science: Data management and development of advanced methods, algorithms, and machine learning approaches integrating health big data. Through an efficient data management and development of advanced methods, algorithms, and machine learning approaches integrating health big data, Spoke 2 will establish a model of a collaborative data and analysis platform in full compliance with the Italian privacy legislation for enabling the processing of predictive computer models on large volumes of digital heterogeneous data, opening new avenues for modern healthcare and personalized medicine. The main research in the department of Computer Science focuses on the design and development of swarm learning solutions and their adoption in healthcare-oriented scenarios. In particular, the focus is to create a stable swarm learning network between University of Verona, University of Bologna, and University of Rome “Tor Vergata”.
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	The HEAL ITALIA group is funded by: European Union—NextGenerationEU through the Italian Ministry of University and Research under PNRR—M4C2-I1.3 Project PE_00000019 “HEAL ITALIA” to the authors CUP B33C22001030006.
2013 - Present	University of Verona - Department of Computer Science Member of the “Databases and Information Systems” group - Link The group of databases and information systems of the Department of Computer Science at the University of Verona deals with the theoretical, methodological and technological aspects of the management of information in complex organizations. The research activities are focused on the following topics: Temporal information systems; Web information systems; Healthcare information systems; Spatio-temporal information;

Organization Activities

Leading Conference Roles

2025	Workshop co-chair for <i>The Workshop on AI in Big Data Analytic for Healthcare</i> in conjunction with the <i>2025 IEEE International Conference on Big Data (IEEE BigData 2025)</i> - Workshop Site - Conference Site.
2025	Workshop co-chair for <i>The 2nd Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS)</i> in conjunction with the <i>IEEE International Conference on Healthcare Informatics 2025 (IEEE ICHI 2025)</i> - Workshop Site - Conference Site.
2024	Workshop co-chair for <i>The 3rd Workshop on Big Data Analytic in Healthcare</i> in conjunction with the <i>2024 IEEE International Conference on Big Data (IEEE BigData 2024)</i> - Workshop Site - Conference Site.
2024	Workshop co-chair for the <i>Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS)</i> in conjunction with the <i>IEEE International Conference on Healthcare Informatics 2024 (IEEE ICHI 2024)</i> - Workshop Site - Conference Site.
2023	Workshop co-chair for <i>The 2nd Workshop on Big Data Analytic in Healthcare</i> in conjunction with the <i>2023 IEEE International Conference on Big Data (IEEE BigData 2023)</i> - Workshop Site - Conference Site.

Conference Organization and Committee Membership

- 2026 | **Program Committee member** for *IEEE International Conference on Healthcare Informatics 2026 (IEEE ICHI 2026)*.
 - 2026 | **Publication co-chair** for *Conference on Advanced Information Systems Engineering 2026 (CAiSE 2026)*.
 - 2025 | **Program Committee member** for *The Workshop on AI in Big Data Analytic for Healthcare*.
 - 2025 | **Program Committee member** for *IEEE International Conference on Healthcare Informatics 2025 (IEEE ICHI 2025)*.
 - 2025 | **Program Committee member** for *The 2nd Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS)*.
 - 2025 | **Program Committee member** for *2nd International Workshop on Artificial Intelligence for Neuroscience (IWAIN'25)*.
 - 2025 | **Publication co-chair** for *IEEE International Conference on Healthcare Informatics 2025 (IEEE ICHI 2025)*.
 - 2024 | **Program Committee member** for *Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS)*.
 - 2024 | **Program Committee member** for *The 3rd Workshop on Big Data Analytic in Healthcare*.
 - 2024 | **Program Committee member** for *IEEE International Conference on Healthcare Informatics 2024 (IEEE ICHI 2024)*.
 - 2024 | **Program Committee member** for *1st International Workshop on Artificial Intelligence for Neuroscience (IWAIN'24)*.
 - 2023 | **Program Committee member** for *The 2nd Workshop on Big Data Analytic in Healthcare*.
 - 2023 | **Program Committee member** for *IEEE International Conference on Healthcare Informatics 2023 (IEEE ICHI 2023)*.
 - 2023 | **Publication co-chair** for *IEEE International Conference on Healthcare Informatics 2023 (IEEE ICHI 2023)*.
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Journal Reviewing Activities

2024	Reviewed for BMC Bioinformatics, Springer Nature
2020 - Ongoing	Reviewed for Artificial Intelligence in Medicine, Elsevier

University Committees

2024/Ongoing	Member of the <i>Tutoring service provided by faculty members</i>
2023/Ongoing	Member of the <i>Computer Science Department Council</i>
2023/Ongoing	Member of the <i>Computer Science Teaching Committee</i>
2022/2023	Member of the <i>Mathematics and Data Science Teaching Committee</i>
2022/2023	Member of the <i>Communication Studies Teaching Committee</i>

Teaching

2025 - 2026	University of Verona - Department of Computer Science Teaching & <u>Coordinator</u> , “ <i>Data Analysis Techniques on Healthcare Data</i> ” - PhD in Computer Science SSD: INFO/01 - Computer Science Course credits: 3 - Teaching credits: 3 Teaching hours: 12
2025 - 2026	University of Verona - Department of Computer Science Teaching, “ <i>Healthcare Information Systems</i> ” - Master’s degree in Medical Bioinformatics SSD: INFO/01 - Computer Science Course credits: 6 - Teaching credits: 3 Teaching hours: 24
2024 - 2025	University of Verona - Department of Computer Science Teaching, Laboratory of “ <i>Introduction to Programming</i> ” - Bachelor’s degree in Bioinformatics SSD: INF/01 - Computer Science Course credits: 12 - Teaching credits: 3 Teaching hours: 36

2023 - 2024	University of Verona - Department of Computer Science Teaching, Laboratory of “ <i>Introduction to Programming</i> ” - Bachelor’s degree in Bioinformatics SSD: INF/01 - Computer Science Course credits: 12 - Teaching credits: 4 Teaching hours: 48
2022 - 2023	University of Verona - Faculty of Medicine and Surgery Teaching, “ <i>Information Technology</i> ” - Scuola di Specializzazione in Farmacologia e Tossicologia Clinica (D.I. 68/2015) SSD: INF/01 - Computer Science Teaching hours: 3
2022 - 2023	University of Verona - Department of Cultures and Civilizations Teaching & Coordinator, “ <i>Documental Information Technology</i> ” - Bachelor’s degree in Communication Studies SSD: INF/01 - Computer Science Course credits: 6 - Teaching credits: 6 Teaching hours: 36
2022 - 2023	University of Verona - Department of Computer Science Teaching, Laboratory of “ <i>Computer Programming with Laboratory</i> ” - Bachelor’s degree in Applied Mathematics SSD: INF/01 - Computer Science Course credits: 12 - Teaching credits: 3 Teaching hours: 36

Presentations at Conferences

2025 - Oral presentation for:	IEEE International Conference on Healthcare Informatics (ICHI 2025) . Rende (CS), Italy. June 18-21, 2025
2024 - Oral presentation for:	IEEE International Conference on Healthcare Informatics (ICHI 2024) . Orlando, FL, USA. June 3-6, 2024
2023 - Oral presentation for:	IEEE International Conference on Healthcare Informatics (ICHI 2023) . Houston, TX, USA. June 26-29, 2023

Sessions chairing at Conferences/Workshops

- | | |
|------|---|
| 2025 | The 2nd Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS) in conjunction with the <i>IEEE International Conference on Healthcare Informatics 2025 (IEEE ICHI 2025)</i> |
| 2024 | The 3rd Workshop on Big Data Analytic in Healthcare in conjunction with the <i>2024 IEEE International Conference on Big Data (IEEE BigData 2024)</i> |
| 2024 | Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS) in conjunction with the <i>IEEE International Conference on Healthcare Informatics 2024 (IEEE ICHI 2024)</i> |
| 2023 | The 2nd Workshop on Big Data Analytic in Healthcare in conjunction with the <i>2023 IEEE International Conference on Big Data (IEEE BigData 2023)</i> |
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Attended Conferences

- IEEE International Conference on Healthcare Informatics (ICHI 2025).** Rende (CS), Italy. June 18-21, 2025
- 2024 IEEE International Conference on Big Data (IEEE BigData 2024).** Washington, DC, USA. Dec 15-18, 2023
- IEEE International Conference on Healthcare Informatics (ICHI 2024).** Orlando, FL, USA. June 3-6, 2024
- 2023 IEEE International Conference on Big Data (IEEE BigData 2023).** Sorrento (NA), Italy. Dec 15-18, 2023
- IEEE International Conference on Healthcare Informatics (ICHI 2023).** Houston, TX, USA. June 26-29, 2023
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Publications

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| 2025 | [J.1] Matteo Mantovani , Simone Scaglia, Riccardo Scheda, Carlo Combi, and Stefano Diciotti. Swarm learning and clinical data: Evaluating the benefit of a new node for the whole network. <i>Journal of Healthcare Informatics Research</i> , Under review |
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| 2025 | [C.4] Matteo Mantovani , Denise Cosolo, Francesco Pio Anzillotti, Cristiano Fava, Pietro Minuz, and Carlo Combi. BEAT - an agile design framework for telemedicine in hypertension. In <i>13th IEEE International Conference on Healthcare Informatics, ICHI 2025, Rende, CS, Italy, June 18-21, 2025</i> , pages 518–528. IEEE, 2025. doi:10.1109/ICHI64645.2025.00065 |
| 2024 | [C.3] Matteo Mantovani , Emanuele Chini, and Carlo Combi. A migration framework for active BPMN processes in healthcare. In <i>12th IEEE International Conference on Healthcare Informatics, ICHI 2024, Orlando, FL, USA, June 3-6, 2024</i> , pages 332–343. IEEE, 2024. doi:10.1109/ICHI61247.2024.00050 |
| 2024 | [C.2] Matteo Mantovani , Riccardo Scheda, Carlo Combi, and Stefano Diciotti. A key performance indicator to analyze swarm learning performances with EHR. In <i>12th IEEE International Conference on Healthcare Informatics, ICHI 2024, Orlando, FL, USA, June 3-6, 2024</i> , pages 620–625. IEEE, 2024. doi:10.1109/ICHI61247.2024.00099 |
| 2023 | [C.1] Matteo Mantovani , Andrea Caravati, Giuseppe Pozzi, Carlo Combi, and Roberto Salvia. A BPMN- based framework to manage ERAS-inspired pathway for patients undergoing pancreatic surgery. In <i>2023 IEEE 11th International Conference on Healthcare Informatics (ICHI)</i> , pages 21–31, 2023. doi:10.1109/ICHI57859.2023.00015 |

Advising

Co-Advisor for the following M.Sc. theses (marked as [Th.x])

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| 2025/Ongoing | [Th.5] <i>Simone Scaglia</i> , Topic: “Analysis performance comparison between different swarm learning frameworks, analysis of the influence of a new node in a swarm network under different conditions, and analysis of different learning algorithms in a swarm environment”, M.Sc. in Medical Bioinformatics - Dept. of Computer Science - University of Verona. Advisor: prof. Carlo Combi |
| 2024/Ongoing | [Th.4] <i>Dawit Gebremariam Aboset</i> , “Multicentric clinical data analysis with swarm learning”, M.Sc. in Medical Bioinformatics - Dept. of Computer Science - University of Verona. Advisor: prof. Carlo Combi |
| 2023/2025 | [Th.3] <i>Denise Cosolo</i> , “BEAT - An agile design framework for telemedicine-based hypertension management - A user-centered approach to the GUI development”, M.Sc. in Medical Bioinformatics - Dept. of Computer Science - University of Verona. Advisor: prof. Carlo Combi |

2023/2025	[Th.2] <i>Francesco Pio Anzillotti</i> , “BEAT - An agile design framework for telemedicine-based hypertension management - Process-driven and data-aware issues”, M.Sc. in Medical Bioinformatics - Dept. of Computer Science - University of Verona. Advisor: prof. Carlo Combi
2022/2023	[Th.1] <i>Emanuele Chini</i> , Topic: Design and Develop a process-driven application used by clinicians to assist patients waiting for pancreatic cancer surgery, M.Sc. in Medical Bioinformatics - Dept. of Computer Science - University of Verona. Advisor: prof. Carlo Combi

Co-Advisor for the following B.Sc. final projects (marked as [FP.x]) and internships ([Ib.x])

2024/Ongoing	[FP.4] <i>Giovanni Andreotti</i> , Topic: Design & Development of a containerizable application for the dose reduction of antidepressants in psychiatry - a front-end focus, BsC in Computer Science. Advisor: prof. Carlo Combi
2024/Ongoing	[FP.3] <i>Riccardo Marchiori</i> , Topic: Design & Development of a containerizable application for the dose reduction of antidepressants in psychiatry - a back-end focus, BsC in Computer Science. Advisor: prof. Carlo Combi
Ongoing	[FP.2] <i>Daria Sizova</i> , Topic: Design & Development of a software for temporal patterns' multidimensional analysis, BsC in Computer Science. Advisor: prof. Carlo Combi
2024	[FP.1] <i>Anna Smetanina</i> , Topic: Design & Development of a software for trend-event patterns' multidimensional analysis, BsC in Computer Science. Advisor: prof. Carlo Combi
2023	[Ib.1] <i>Samuele Vezzoli</i> , Topic: Design & Development of unit tests and other test techniques for an Angular/NodeJS web-app, BsC in Bioinformatics. Advisor: prof. Carlo Combi

I authorize the processing of my personal data for personnel research and selection purposes under D.Lgs. n.196 of 30/06/2003.

Verona, 4 Dicembre 2025

Matteo Mantovani

Centro Regionale di Farmacovigilanza della Regione Veneto

Deliberazione della Giunta Regionale n. 644 del 10/6/2024

Responsabile: prof. Ugo Moretti

Verona, 9/12/2025

Al prof. Aldo Scarpa
Direttore
Dipartimento di Diagnostica e Sanità Pubblica
Università di Verona

Oggetto: supporto a RTD-A del Dipartimento di Informatica

Da oltre 15 anni il mio gruppo di ricerca, da tempo sede del centro Regionale di Farmacovigilanza della Regione Veneto, finanziato con fondi dell'Agenzia Italiana del Farmaco tramite la Regione Veneto, collabora con il prof. Carlo Combi del Dipartimento di Informatica in ricerche collegate all'analisi dei dati In campo di farmacovigilanza. Nel corso degli anni questa collaborazione ho portato alla attivazione di numerosi contratti del nostro Dipartimento dedicati a laureati in Informatica, con alcune delle persone coinvolte strutturate sia nel nostro Dipartimento che in quello di Informatica.

La collaborazione si è ulteriormente rafforzata con l'arrivo nel Dipartimento del prof. Gianluca Trifirò con progetti di ricerca collegati al campo della farmacovigilanza e farmacoepidemiologia.

Vi è ora a possibilità di poter continuare questa collaborazione con il finanziamento di una proroga annuale della posizione RTD-A del dottor Matteo Mantovani. La proroga verrebbe finanziata con fondi collegati a Centro Regionale, in particolare il fondo MORETTI_CRFV_FONDI1822.

L'attività del dott. Mantovani riguarderà lo sviluppo di tecniche di analisi di dati descrittive (data mining) e predittive (machine learning). L'uso dell'intelligenza artificiale e tecniche di Large Language Model (LLM) sono ormai di primaria importanza nell'ambito della raccolta e analisi di dati in farmacovigilanza e farmacoepidemiologia. Nello specifico il Centro Regionale di Farmacovigilanza di cui sono responsabile fa ricerca e opera in collaborazione con AIFA nell'analisi dei dati e ricerca dei segnali, ambiti nei quali l'uso dell'intelligenza artificiale si è largamente sviluppato nel corso degli ultimi anni.

Chiedo quindi che il nostro Dipartimento possa approvare questa collaborazione con l'utilizzo dei fondi sopra riportati. Preciso che questo finanziamento non sarà oggetto di rendicontazione verso AIFA in quanto incluso nell'overhead e in spese generali non rendicontate.

Con i più cordiali saluti

Prof. Ugo Moretti

