

List of Publications

International Journal Papers

- J1 M. Messori, J. Kropff, S. Del Favero, J. Place, **R. Visentin**, R. Calore, C. Toffanin, F. Di Palma, G. Lanzola, A. Farret, F. Boscari, S. Galasso, A. Avogaro, P. Keith-Hynes, B.P. Kovatchev, D. Bruttomesso, L. Magni, J.H. DeVries, E. Renard, C. Cobelli, for the AP@home consortium. *Individually Adaptive Artificial Pancreas Improves Glucose Control in Subjects with Type 1 Diabetes. A One-Month Free-living Conditions Trial*. Diabetes Technol Ther. Accepted
- J2 S.A. Brown, M.D. Breton, S.M. Anderson, L. Kollar, C.J. Levy, D.W. Lam, C. Levister, N. Baysal, Y.C. Kudva, A. Basu, V. Dadlani, L. Hingshaw, S. McCrady-Spitzer, D. Bruttomesso, **R. Visentin**, S. Galasso, S. Del Favero, Y. Leal Moncada, F. Boscari, A. Avogaro, C. Cobelli, B.P. Kovatchev. *Overnight Closed Loop Control Improves Overall Glycemic Control in a Multinight Multicenter Outpatient and Home Study of Patients with T1D*. J Clin Endocrinol Metab. In press
- J3 S. Faccioli, S. Del Favero, **R. Visentin**, R. Bonfanti, D. Iafusco, I. Rabbone, A. Sabbion, R. Schiaffini, D. Bruttomesso, C. Cobelli, on behalf of the PedArPan Study Group. *Accuracy of a CGM sensor in Pediatric Subjects with Type 1 Diabetes. Comparison of Three Insertion Sites: Arm, Abdomen and Gluteus*. J Diabetes Sci Technol. In press
- J4 E. Losiouk, G. Lanzola, S. Del Favero, F. Boscari, M. Messori, I. Rabbone, R. Bonfanti, A. Sabbion, D. Iafusco, R. Schiaffini, **R. Visentin**, R. Calore, Y.L. Moncada, S. Galasso, A. Galderisi, V. Vallone, F. Di Palma, D. Tinti, A. Rigamonti, M. Marigliano, A. Zanfardino, N. Rapini, A. Avogaro, D. Chernavsky, L. Magni, C. Cobelli, D. Bruttomesso, S. Quaglini. *Parental Evaluation of a Telemonitoring Service for Children with Type 1 Diabetes*. J Telemed Telecare. In press
- J5 C. Toffanin*, **R. Visentin***, M. Messori, F. Di Palma, L. Magni, C. Cobelli. *Towards a Run-to-Run Adaptive Artificial Pancreas: In Silico Results*. IEEE Trans Biomed Eng. In press (*: co-first authors)
- J6 S. Veetil, I. Errazuriz, S. Dube, **R. Visentin**, S. Nayar, H. O'Connor, C. Cobelli, S. Kumar Das, A. Basu, J. Port, R. Basu. *Effects of a MUFA or fiber rich diet on hepatic fat in pre-diabetes*. J Clin Endocrinol Metab. 2017 May 1;102(5):1765-1774
- J7 A. Troncone, R. Bonfanti, D. Iafusco, I. Rabbone, A. Sabbion, R. Schiaffini, A. Galderisi, M. Marigliano, N. Rapini, A. Rigamonti, D. Tinti, V. Vallone, A. Zanfardino, F. Boscari, S. Del Favero, S. Galasso, G. Lanzola M. Messori, F. Di Palma, **R. Visentin**, R. Calore, Y. Leal, L. Magni, E. Losiouk, D. Chernavsky, S. Quaglini, C. Cobelli, D. Bruttomesso. *Evaluating the experience of children with type 1 diabetes and their parents taking part in an artificial pancreas clinical trial over multiple days in a diabetes camp setting*. Diabetes Care. 2016 Dec;39(12):2158-2164
- J8 **R. Visentin**, C. Giegerich, R. Jager, R. Dahmen, A. Boss, M. Grant, C. Dalla Man, C. Cobelli, and T. Klabunde. *Improving Efficacy of Inhaled Technosphere Insulin (Afrezza) by Post-meal Dosing: In Silico Clinical Trial with the UVA/Padova Type 1 Diabetes Simulator*. Diabetes Technol Ther. 2016 Sep;18(9):574-85
- J9 S. Del Favero, F. Boscari, M. Messori, I. Rabbone, R. Bonfanti, A. Sabbion, D. Iafusco, R. Schiaffini, **R. Visentin**, R. Calore, Y. Leal Moncada, S. Galasso, A. Galderisi, V. Vallone, F. Di Palma, E. Losiouk, G. Lanzola, D. Tinti, A. Rigamonti, M. Marigliano, A. Zanfardino, N. Rapini, A. Avogaro, D. Chernavsky, L. Magni, C. Cobelli, D. Bruttomesso. *Randomized summer camp cross-over trial in 5-9 year old children: outpatient wearable artificial pancreas is feasible and safe*. Diabetes Care. 2016 Jul;39(7):1180-5

- J10 E. Renard, A. Farret, J. Kropff, D. Bruttomesso, M. Messori, J. Place, **R. Visentin**, R. Calore, C. Toffanin, F. Di Palma, G. Lanzola, P. Magni, F. Boscari, S. Galasso, A. Avogaro, P. Keith-Hynes, B. Kovatchev, S. Del Favero, C. Cobelli, L. Magni, J.H. DeVries, AP@home consortium. *Day-and-Night Closed-Loop Glucose Control in Patients with Type 1 Diabetes under Free-Living Conditions: One-month Experience after Demonstration of Feasibility for Two Months during Evening and Night at Home*. Diabetes Care. 2016 Jul;39(7):1151-60
- J11 **R. Visentin**, C. Dalla Man, C. Cobelli. *One-Day Bayesian Cloning of Type 1 Diabetes Subjects: Towards a Single-Day UVA/Padova Type 1 Diabetes Simulator*. IEEE Trans Biomed Eng. 2016 Feb;63(11):2416-24
- J12 J. Kropff, S. Del Favero, J. Place, C. Toffanin, **R. Visentin**, M. Monaro, M. Messori, F. Di Palma, G. Lanzola, A. Farret, F. Boscari, S. Galasso, P. Magni, A. Avogaro, P. Keith-Hynes, B.P. Kovatchev, D. Bruttomesso, C. Cobelli, E. Renard, J.H. DeVries, L. Magni, for the AP@home consortium. *2 month evening and night closed-loop glucose control in patients with type 1 diabetes under free-living conditions: a randomised crossover trial*. Lancet Diabetes Endocrinol. 2015 Dec;3(12):939-47
- J13 **R. Visentin**, C. Dalla Man, R. Basu, A. Basu, R.A. Rizza, C. Cobelli. *Hepatic Insulin Sensitivity in Healthy and Prediabetes: From a Dual To a Single Tracer Oral Minimal Model*. Am J Physiol Endocrinol Metab. 2015 Jul 15;309(2):E161-7
- J14 S. Del Favero, J. Place, J. Kropff, M. Messori, P. Keith-Hynes, **R. Visentin**, M. Monaro, S. Galasso, F. Boscari, C. Toffanin, F. Di Palma, G. Lanzola, S. Scarpellini, A. Farret, B.P. Kovatchev, A. Avogaro, D. Bruttomesso, L. Magni, J.H. DeVries, C. Cobelli, E. Renard. *Multicenter outpatient dinner/overnight reduction of hypoglycemia and increased time of glucose in target with a wearable artificial pancreas using modular model predictive control in adults with type 1 diabetes*. Diabetes Obes Metab. 2015 May;17(5):468-76
- J15 S.A. Brown, B.P. Kovatchev, M.D. Breton, S.M. Anderson, P. Keith-Hynes, S.D. Patek, B. Jiang, N. Ben Brahim, P. Vereshchetein, D. Bruttomesso, A. Avogaro, S. Del Favero, F. Boscari, S. Galasso, **R. Visentin**, M. Monaro, C. Cobelli. *Multinight "Bedside" Closed-Loop Control for Patients with Type 1 Diabetes*. Diabetes Technol Ther. 2015 Mar;17(3):203-9
- J16 **R. Visentin**, C. Dalla Man, Y.C. Kudva, A. Basu, C. Cobelli. *Circadian Variability of Insulin Sensitivity: Physiological Input for an In Silico Artificial Pancreas*. Diabetes Technol Ther. 2015 Jan;17(1):1-7
- J17 S. Del Favero, D. Bruttomesso, F. Di Palma, G. Lanzola, **R. Visentin**, A. Filippi, R. Scotton, C. Toffanin, M. Messori, S. Scarpellini, P. Keith-Hynes, B.P. Kovatchev, J.H. DeVries, E. Renard, L. Magni, A. Avogaro, C. Cobelli on behalf of AP@home. *First use of model predictive control in outpatient wearable artificial pancreas*. Diabetes Care. 2014;37(5):1212-5
- J18 **R. Visentin**, C. Dalla Man, B.P. Kovatchev, C. Cobelli. *The University of Virginia/Padova Type 1 Diabetes Simulator Matches the Glucose Traces of a Clinical Trial*. Diabetes Technol Ther. 2014 Jul;16(7):428-34
- J19 B.P. Kovatchev, E. Renard, C. Cobelli, H.C. Zisser, P. Keith-Hynes, S.M. Anderson, S.A. Brown, D.R. Chernavsky, M.D. Breton, A. Farret, M.J. Pelletier, J. Place, D. Bruttomesso, S. Del Favero, **R. Visentin**, A. Filippi, R. Scotton, A. Avogaro, F. Doyle III. *Feasibility of outpatient fully integrated closed-loop control: first studies of wearable artificial pancreas*. Diabetes Care. 2013 Jul;36(7):1851-8

Short-Papers on International Peer-Reviewed Conferences

- C1 **R. Visentin**, T. Klabunde, M. Grant, C. Dalla Man, and C. Cobelli. *Incorporation of Inhaled Insulin into the FDA accepted University of Virginia/Padova Type 1 Diabetes Simulator*. Conf Proc IEEE Eng Med Biol Soc. 2015; 2015:3250-3

Abstracts

- A1 **R. Visentin**, E. Campos Nanez, M. Schiavon, D. Lv, M. Breton, A. Facchinetti, C. Dalla Man, B. Kovatchev, C. Cobelli. *The University of Virginia/Padova Type 1 Diabetes Simulator Goes Single Day*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2017, 15–18 Feb
- A2 M. Schiavon, **R. Visentin**, C. Dalla Man, T. Klabunde, C. Cobelli. *Modeling Subcutaneous Absorption of U100 and U300 Insulin Glargine in Type 1 Diabetes*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2017, 15–18 Feb
- A3 Y. Leal, S. Del Favero, M. Vettoretti, **R. Visentin**, A. Facchinetti, C. Cobelli. *Incorporation of Models of CGM Sensor Error and Faults Affecting CGM Sensors in the UVA/Padova Type-1 Diabetic Simulator: Assessment on Clinical Data*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2017, 15–18 Feb
- A4 S. Oviedo, J. Vehi, I. Contreras, **R. Visentin**, M. Vettoretti. *Mid-Term Blood Glucose Prediction: A Hybrid Approach Using Grammatical Evolution and Physiological Models*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2017, 15–18 Feb
- A5 **R. Visentin**, T. Klabunde, M. Grant, C. Dalla Man and C. Cobelli. *Incorporation of Afrezza® into the Type 2 Diabetes Simulator*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A6 **R. Visentin**, C. Dalla Man, R. Bonfanti, D. Iafusco, R. Schiaffini, I. Rabbone, D. Bruttomesso C. Cobelli. *Improvement of the Children Population included into the UVA/Padova Type 1 Diabetes Simulator*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A7 **R. Visentin**, M. Vettoretti, A. Facchinetti, C. Dalla Man, G. Sparacino, C. Cobelli. *Incorporation of the Sensor-Augmented Insulin-Pump Therapy into the UVA/Padova Type 1 Diabetes Simulator*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A8 Y. Leal, L. Gonzalez-Abril, **R. Visentin**, S. Del Favero, M. Vettoretti, A. Facchinetti, G. Sparacino, C. Cobelli. *Support Vector Regression for Mid-Term Nocturnal Glucose Prediction from Continuous Glucose Monitoring and Insulin Delivery Information*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A9 S. Del Favero, F. Boscari, M. Messori, I. Rabbone, R. Bonfanti, A. Sabbion, D. Iafusco, R. Schiaffini, **R. Visentin**, R. Calore, Y. Leal, S. Galasso, A. Galderisi, V. Vallone, F. Di Palma, E. Losiouk, G. Lanzola, D. Tinti, A. Rigamonti, M. Marigliano, A. Zanfardino, N. Rapini, A. Avogaro, D. Chernavsky, L. Magni, C. Cobelli, D. Bruttomesso. *Multi-center Randomized Cross-Over Italian Pediatric Summer Camp: AP vs SAP in 5-9 year old Children*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A10 E. Losiouk, G. Lanzola, R. Bonfanti, D. Iafusco, I. Rabbone, A. Sabbion, R. Schiaffini, A. Galderisi, M. Marigliano, N. Rapini, A. Rigamonti, D. Tinti, V. Vallone, A. Zanfardino, F. Boscari, S. Galasso, A. Troncone, S. Del Favero, **R. Visentin**, R. Calore, Y.L. Moncada, F. Di Palma, M. Messori, D. Chernavsky, L. Magni, D. Bruttomesso, S. Quaglini, C. Cobelli. *Perceived Utility of a Remote Monitoring System of Pediatric Subjects Affected by Type 1 Diabetes*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb
- A11 A. Troncone, R. Bonfanti, D. Iafusco, I. Rabbone, A. Sabbion, R. Schiaffini, A. Galderisi, M. Marigliano, N. Rapini, A. Rigamonti, D. Tinti, V. Vallone, A. Zanfardino, F. Boscari, S. Del Favero, S. Galasso, G. Lanzola M. Messori, F. Di Palma, **R. Visentin**, R. Calore, Y. Leal, L. Magni, E. Losiouk, D. Chernavsky, S. Quaglini, C. Cobelli, D. Bruttomesso. *The Social Acceptance of Future Artificial Pancreas Technology: Parents' Perceptions of PedArPan (Pediatrics Artificial Pancreas)*. Advanced Technologies and Treatments for Diabetes, Milan, Italy, 2016, 3–6 Feb

- A12 **R. Visentin**, T. Klabunde, C. Dalla Man and C. Cobelli. *Modeling the Effect of Liraglutide in T2DM with the T2DM Simulator: a Paradigm for In-Silico Trials*. 15th Diabetes Technology Meeting, Bethesda, Maryland, 2015, 22–24 Oct
- A13 E. Renard, J.H. De Vries, C. Cobelli, L. Magni, J. Place, J. Kropff, S. Del Favero, **R. Visentin**, M. Monaro, C. Toffanin, F. Di Palma, G. Lanzola, M. Messori, A. Farret, F. Boscari, S. Galasso, D. Bruttomesso, A. Avogaro, on behalf of the AP@Home Consortium. *Reduction of Hyper- and Hypoglycemia during Two Months with a Wearable Artificial Pancreas from Dinner to Breakfast in Patients with Type 1 Diabetes*. American Diabetes Association - 75th scientific sessions, Boston, Massachusetts, 2015, 5–9 Jun
- A14 **R. Visentin**, C. Dalla Man, B.P. Kovatchev and C. Cobelli. *Incorporation of Intra-day Variability into the UVA/Padova Type 1 Diabetes Simulator*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2015, 18–21 Feb
- A15 S. Veetil, I. Errazuriz, **R. Visentin**, S. Dube, C. Shonkwiler, B. Norby, S. Nayar, C. Dalla Man, A. Basu, C. Cobelli, J. Port, R. Basu. *Effects of Nutritional Intervention on Hepatic Fat and Hepatic Insulin Sensitivity in Prediabetes*. American Diabetes Association - 74th scientific sessions, San Francisco, California, 2014, 13–17 Jun
- A16 S. Del Favero, J. Place, J. Kropff, M. Messori, P. Keith-Hynes, **R. Visentin**, M. Monaro, D. Bruttomesso, S. Galasso, F. Boscari, C. Toffanin, F. Di Palma, G. Lanzola, S. Scarpellini, A. Farret, B.P. Kovatchev, L. Magni, J.H. De Vries, C. Cobelli, E. Renard, on behalf of the AP@Home Consortium. *Multicenter Outpatient Wearable Artificial Pancreas (AP) Study: Improved Safety and Efficacy of Glycemic Control*. American Diabetes Association - 74th scientific sessions, San Francisco, California, 2014, 13–17 Jun
- A17 **R. Visentin**, S. Del Favero, A. Facchinetti, F. Micheletto, Y.Y. Chang, C. Dalla Man and C. Cobelli. *Prediabetes and Type 2 Diabetes Simulator: In-Silico Testing of New Drugs*. Advanced Technologies and Treatments for Diabetes, Wien, Austria, 2014, 5–8 Feb
- A18 **R. Visentin**, C. Dalla Man, A. Kamath, T. Peyser, A.L. Rack-Gomer and C. Cobelli. *Cloning type 1 diabetic subjects with the UVA/Padova simulator from insulin pump infusion and plasma glucose*. 13th Diabetes Technology Meeting, Burlingame, California, 2013, 31 Oct–2 Nov
- A19 F. Micheletto, **R. Visentin**, C. Dalla Man, A. Vella and C. Cobelli. *The Type 2 Diabetes Simulator: in Silico Testing of Drugs*. 13th Diabetes Technology Meeting, Burlingame, California, 2013, 31 Oct–2 Nov
- A20 **R. Visentin**, C. Dalla Man and C. Cobelli. *Intra-day Variability of Glucose Absorption and Insulin Sensitivity: Assessment from AP@home Clinical Trial Data*. Advanced Technologies and Treatments for Diabetes, Paris, France, 2013, 27 Feb–2 Mar
- A21 **R. Visentin**, C. Dalla Man and C. Cobelli. *Cloning a Day of T1DM Individual Subjects from the FDA-accepted Simulator by a Bayesian Approach*. 12th Diabetes Technology Meeting, Bethesda, Maryland, 2012, 8–10 Nov
- A22 **R. Visentin**, C. Dalla Man, B.P. Kovatchev and C. Cobelli. *Incorporating Nonlinear Response to Hypoglycemia into the Type 1 Diabetes Simulator*. 11th Diabetes Technology Meeting, Burlingame, California, 2011, 27–29 Oct

Italian Journal Papers

- ItaJ1 C. Cobelli, C. Dalla Man, A. Facchinetti, M. Schiavon, **R. Visentin**. *Trial In Silico di Tecnologie per il Diabete: Pancreas Artificiale, Molecole di Insulina e Sensori di Glucosio (In silico trials of diabetes technologies: artificial pancreas, insulin molecules and glucose sensors)*. G It Diabetol Metab. 2016 Sep;36(3):144-154

- ItaJ2 F. Boscari, S. Del Favero, M. Messori, I. Rabbone, R. Bonfanti, A. Sabbion, D. Iafusco, R. Schiaffini, **R. Visentin**, R. Calore, Y.L. Moncada, S. Galasso, A. Galderisi, V. Vallone, F. Di Palma, E. Losiouk, G. Lanzola, D. Tinti, A. Rigamonti, M. Marigliano, A. Zanfardino, N. Rapini, A. Avogaro, D. Chernavvsky, L. Magni, C. Cobelli, D. Bruttomesso, S. Quaglini. *Il Pancreas artificiale in età pediatrica: prima esperienza italiana (The artificial pancreas in children: first tests in Italy)*. G It Diabetol Metab. 2016 Sep;36(3):125-133

Contributions to Italian Conferences

- ItaC1 **R. Visentin**, T. Klabunde, M. Grant, C. Dalla Man and C. Cobelli. *The UVA/Padova Type 1 Diabetes Simulator for Optimizing the Dosing Regimen of Inhaled Insulin*. 5th Bioengineering National Group Meeting GNB2016, Napoli, Italy, 2016, 20–22 Jun
- ItaC2 **R. Visentin**, C. Dalla Man and C. Cobelli. *A Bayesian Method for the Identification of the Glucose-Insulin Model in Type 1 Diabetes*. 4th Bioengineering National Group Meeting GNB2014, Pavia, Italy, 2014, 25–27 Jun
- ItaC3 **R. Visentin**, C. Dalla Man, B.P. Kovatchev and C. Cobelli. *Clinical Assessment of the Type 1 Diabetes Simulator*. 3rd Bioengineering National Group Meeting GNB2012, Roma, Italy, 2012, 26–29 Jun

Thesis

- PhD thesis** *In silico testing of artificial pancreas and new type 1 diabetes treatments: model development and assessment*. Supervisor: Chiara Dalla Man
- Master thesis** *Sviluppo e validazione di un modello minimo orale per la stima dei flussi postprandiali di glucosio con singolo tracciante* (Development and assessment of a single-tracer oral minimal model to estimate postprandial glucose fluxes) in Italian. Supervisor: Chiara Dalla Man
- Bachelor thesis** *Tecniche Lempel-Ziv per la compressione e per l'analisi di segnali biomedici* (Lempel-Ziv techniques for compression and analysis of biomedical signals) in Italian. Supervisor: Giovanni Sparacino

Padova, June 29, 2017