

SCIENTIFIC CONTRIBUTIONS

Peer-reviewed Publications

- Salvaggio, S., Monsell, S. E., Heagerty, P. J., De Backer, M., Barré, E., Chiem, J. C., Saad, E. D., Buyse, M., Flum, D. R. (in press) Generalized pairwise comparisons to support shared decision-making in the Comparison of Outcomes of Antibiotic Drugs and Appendectomy (CODA) trial. *JAMA Network Open*.
- Anderson, C., Salvaggio, S., De Backer, M., Chiem, J. C., Walker, G., Saunders, D., Lee, C., Dunlap, N., Kennedy, E., Beardsley, R., Schoen, B., Buyse, M. (2025). Benefit of Avasopasem Manganese on Severe Oral Mucositis in Head and Neck Cancer in the ROMAN Trial: Unplanned Secondary Analysis. *Advances in radiation oncology*, 10(1), 101674.
- Zénon, A., Salvaggio, S., Andres, M. (2024). Pupil size variations reveal Bayesian inference in cognitive arithmetic. *bioRxiv*, 2024-11.
- Salvaggio, S., Barré, E., Coppe, S., Buyse, M. How an Innovative Statistical Methodology Enables More Patient-Centric Design and Analysis of Clinical Trials. *Clinical Researcher*, 703, 23.
- Backer, M. D., Sengar, M., Mathews, V., Salvaggio, S., Deltuvaite-Thomas, V., Chiêm, J. C., Saad, E.D., Buyse, M. (2024). Design of a clinical trial using generalized pairwise comparisons to test a less intensive treatment regimen. *Clinical Trials*, 21(2), 180-188.
- Deltuvaite-Thomas, V., De Backer, M., Parker, S., Deneux, M., Polgreen, L.E., O'Neill, C., Salvaggio, S., Buyse, M. Generalized pairwise comparisons of prioritized outcomes are a powerful and patient-centric analysis of multi-domain scores. *Orphanet J Rare Dis* 18, 321 (2023)
- Verbeeck, J., De Backer, M., Verwerft, J., Vranckx P., Salvaggio, S., Valgimigli, M., Buyse, M., Brunner, E., Generalized pairwise comparisons to assess treatment effects: JACC Review Topic of the Week. *Journal of the American College of Cardiology*, In Press (2023)
- Salvaggio, S, Andres, M., Zénon, A., Masson, N., Pupil size variations reveal covert shifts of attention induced by numbers. *Psychonomic Bulletin and Review*, 240, 1331–1340 (2022). doi.org/10.1007/s00221-022-06329-3
- Salvaggio, S, Masson, N., Zénon, A, Andres, M., The predictive role of eye movements in mental arithmetic. *Experimental Brain Research*, (2022). doi.org/10.3758/s13423-022-02094-0
- Bollen, Z, Masson, N, Salvaggio, S, D'Hondt, F, Maurage, P. Craving is everything: An eye-tracking exploration of attentional bias in binge drinking. *Journal of Psychopharmacology*, Vol. 34, no. 6, p. 636-647 (2020). doi:10.1177/0269881120913131
- Andres, M, Salvaggio, S, Lefèvre, N, Pesenti, M, Masson, N. Semantic associations between arithmetic and space : Evidence from temporal order judgements. *Memory and Cognition*, Vol. 48, no. 3, p. 361-369 (2020). doi:10.3758/s13421-019-00975-9
- Salvaggio, S, Masson, N, Andres, M.. Eye position reflects the spatial coding of numbers during magnitude comparison. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, Vol. 45, no. 10, p. 1910-1921 (2019). doi:10.1037/xlm0000681
- Lacroix, E, Deggouj, N, Salvaggio, S, Wiener, V ; Debue, M ; Edwards, M. The development of a new questionnaire for cognitive complaints in vertigo: the Neuropsychological Vertigo Inventory (NVI). *European Archives of Oto-Rhino-Laryngology*, Vol. 273, no. 12, p. 4241-4249 (2016). doi:10.1007/s00405-016-4135-x

Book chapters

- Chiêm, J.-C., Salvaggio, S. (2025). A Shiny app for GPC. In M. Buyse, J. Verbeeck, E. D. Saad, M. De Backer, V. Deltuvaite-Thomas, G. Molenberghs (Eds.), *Handbook of Generalized Pairwise Comparisons: Methods for Patient-Centric Analysis* (Chap. 15). Chapman and Hall/CRC.
- Buyse, M., Salvaggio, S. (2025). Regulatory considerations for GPC analyses. In M. Buyse, J. Verbeeck, E. D. Saad, M. De Backer, V. Deltuvaite-Thomas, G. Molenberghs (Eds.), *Handbook of Generalized Pairwise Comparisons: Methods for Patient-Centric Analysis* (Chap. 20). Chapman and Hall/CRC.

Conference talks

- Léguillette, C., Salvaggio, S., Wallet, J., Blay, J., Verret, B., Italiano, A., Penel, N., le Deley, M., *Contribution of Q-TWiST and GPC methods for the evaluation of the benefit-risk ratio in a randomised controlled trial. Application to the EREMISS trial*. EPICLIN (Bordeaux, France, 2025)
- Salvaggio, S., De Backer, M., Deltuvaite-Thomas, V., Kosta, S., Barré, E., Chiem, J-C., Saad, E.,Buyse, M., *Visuals for Generalized Pairwise Comparisons: innovative tools to explore treatment effects on multiple prioritized outcomes*. Central European Network 5th annual conference (CEN) (Basel, Switzerland, 2023)
- Anderson, C., Salvaggio, S., De Backer, M., Kennedy, E.P., Buyse, M., *Net treatment benefit of avasopasem manganese for severe oral mucositis from the ROMAN trial*. European Head & Neck Society Conference (Lisbon, Portugal, 2023)

- Masson, N., **Salvaggio, S.**, Zénon, A., Andres, M., *Covert shifts of attention during numerical comparison revealed by pupil light response*, Meeting of the European Society for Cognitive Psychology (ESCoP) (Lille, France, 2022)
- Buyse, M., Wong, J., **Salvaggio, S.**, Chiem, J-C., Zhang, Y., Treuner, K., Kranenbarg, E., De Backer, M., Liefers, G., Schnabel, C., *Breast Cancer Index and assessment of the Net Treatment Benefit (NTB) of extended endocrine therapy in HR+ breast cancer*. San Antonio Breast Cancer Symposium (San Antonio, USA, 2021).
- Andres, M., Masson, N., **Salvaggio, S.** *Visualizing mathematics: Insights from eye-tracking studies*. International Conference on Spatial Cognition (Rome, Italy, 2021).
- **Salvaggio, S.**, Masson, N., , Andres, M., *Temporal dynamics of attention shifts during arithmetic problem solving*, Cognitive and Motor Processes in Spatial Attention (Durham, UK, 2019)
- **Salvaggio, S.** *Mathematics viewed through the lens of information theory*. Advances in Numerical Cognition Research (Blankenberge, Belgium, 2019).
- **Salvaggio, S.** *Visualizing Mathematics: Insights from eye-tracking studies*. Cosymposium (Louvain-la-Neuve, Belgium, 2019).
- **Salvaggio, S.**, Masson, N, Andres, M. *Eye position reflects the spatial coding of numbers during magnitude comparison*. Advances in Numerical Cognition Research (Tournai, Belgium, 2017).

Conference posters

- Piedbois, P., Kosta, S., Montestruc, F., Buyse, M. E., **Salvaggio, S.**, Cappuzzo, F., Dziadzusko, R., Viteri, S., Pierache, A., Perot, S., Comis, S., Gabarre, V., Vasseur, B., Liu, S.V. & Besse, B. (2025). 2032eP Net treatment benefit in ARTEMIA trial comparing OSE2101 to docetaxel in patient with non-small cell lung cancer (NSCLC): Outcomes prioritization based on investigators preferences. Annals of Oncology, 36, S1154-S1155. (ESMO, Berlin, Germany, 2025)
- Penel, N., Leguillette, C., Wallet, J., Blay, J. Y., Verret, B., Italiano, A., **Salvaggio, S.**, & Le Deley, M. C. (2025). 2698P Evaluation of the benefit-risk ratio in EREMISS randomized trial using Q-TWiST and GPC methods. Annals of Oncology, 36, S1441. (ESMO, Berlin, Germany, 2025)
- Bermejo, B., **Salvaggio, S.**, García Sáenz, J.A., Ciani, O., Saad, E., Carrasco, E., Chiem, J.-C., Casas, M., Gil-Gil, M., Ruiz-Borrego, M., Ciruelos, E.M., Muñoz, M., Margelí, M., Antón, A., Kahan, Z., Csösz, T., Gauthier, E., Zieliński, C., Buyse, M., Martín, M. *Net Treatment Benefit from either endocrine therapy plus palbociclib or capecitabine in GEICAM/2013-02_PEARL, a phase 3 trial in hormone receptor-positive, HER2-negative metastatic breast cancer*. ESMO Breast Cancer Congress (Berlin, Germany, 2025)
- Buyse, M., Spera, G., Saad, E., Martín, M., Fasching, P., Fresco, R., Crown, J., Chan, A., Chap, L., Pienkowski, T., Valero, V., Bee, V., Alharazin, H., **Salvaggio, S.**, Slamon, D. *Benefit/risk relationship of TCH versus AC-TH in BCIRG006: analysis using generalized pairwise comparisons*. San Antonio Breast Cancer Conference (SABCS) (San Antonio, USA, 2024)
- Chiem, J.-C., **Salvaggio, S.**, Deltuvaite-Thomas, V., Kosta, S., Verbeeck, J., De Backer, M., Barré, E., Saad, E., Buyse, M. *Highlighting the Multidimensional Benefits of a Treatment Using Generalized Pairwise Comparisons*. Professional Society for Health Economics and Outcomes Research Conference (ISPOR) (Boston, USA, 2023)
- **Salvaggio, S.**, Deltuvaite-Thomas, V., De Backer, M., Chiem, J-C., Barré, E., Saad, E.,Buyse, M., the net treatment benefit: an intuitive statistical tool involving individual patients in treatment decision-making. International Meeting on Statistical Methods in Biopharmacy (SNB) (Paris, France, 2022)
- **Salvaggio, S.**, Masson, N, Andres, M. *Mental arithmetic relies on the oculomotor system to alleviate cognitive load*.Annual meeting of the Belgium Association for Psychological Sciences (BAPS) (Louvain-la-Neuve, Belgium, 2021)
- **Salvaggio, S.**, Masson, N, Andres, M. *Temporal dynamics of attention shifts during arithmetic problem solving*. Cognitive and Motor Processes in Spatial Attention (Durham, United Kingdom, 2019).
- Lacroix, E, **Salvaggio, S.**, Deggouj, N, Wiener, V, Debue, M, Edwards, M. *Can balance disorders moderate our cognition? Creation and validation of a new questionnaire*. 3ème Colloque GDR Vertige - Cognition & Vertige (Marseille, France, 2017).
- **Salvaggio, S.**, Masson, N, Andres, M. *Eye Position Reflects the Spatial Coding of Numbers and Arithmetic Operations*. 9th IoNS Young Researcher Day (Brussels, Belgium, 2017).
- **Salvaggio, S.**, Masson, N, Andres, M. *Eye Position Reflects the Spatial Coding of Numbers and Arithmetic Operations*. Linguistic and Cognitive Influences on Numerical Cognition (Tübingen, Germany, 2017).
- **Salvaggio, S.**, Masson, N, Andres, M. *Eye position reflects the spatial coding of numbers during magnitude comparison*. The origin of numerical abilities (The Royal Society, London, United Kingdom, 2017).
- Lacroix, E, **Salvaggio, S.**, Deggouj, N, Wiener, V, Debue, M, Edwards, M. *Can balance disorders moderate our cognition? Creation and validation of a new questionnaire*. Annual meeting of the Belgium Association for Psychological Sciences (BAPS) (Brussels, Belgium, 2015).

- **Salvaggio, S.**, Grade, S., Tournadre, M., Edwards, M. *Cheating the virtual hand: altering action capacities influence perceived distance and reachability*. The annual meeting of the Belgium Association for Psychological Sciences (BAPS) (Brussels, Belgium, 2015).
- Lacroix, E., **Salvaggio, S.**, Deggouj, N., Wiener, V., Debue, M., Edwards, M. *Can balance disorders moderate our cognition? Creation and validation of a new questionnaire*. Autumn Meeting of the Royal Belgian Oto-rhino-Laryngology and Head and Neck Surgery Society, B-Audio Session (Namur, Belgium, 2015).
- Lacroix, E., **Salvaggio, S.**, Deggouj, N., Wiener, V., Debue, M., Edwards, M. *Can balance disorders moderate our cognition? Creation and validation of a new questionnaire*. Research on Imagery and Observation (RIO) Conference (Stirling, United Kingdom, 2015).
- Lacroix, E., **Salvaggio, S.**, Deggouj, N., Wiener, V., Debue, M., Edwards, M. *Can balance disorders moderate our cognition? Creation and validation of a new questionnaire*. British Society of Neuro-Otology (BSNO) (London, United Kingdom, 2015).

PROFESSIONAL CONTRIBUTIONS

Industry articles

- **Salvaggio, S.** (2025). Enhancing Patient-Centric Clinical Trials with the Net Treatment Benefit Methodology. *DIA Global Forum*.
- Mann, T., Kosta, S., **Salvaggio, S.** (2024). Enhancing Empowerment in Patient-Focused Research. *Applied Clinical Trials*.
- **Salvaggio, S.**, Barré, E., Coppe, S., Buyse, M. (2024). How an Innovative Statistical Methodology Enables Patient-Centric Trial Design. *Clinical Researcher*.

Media interviews, blog and features

- Mann, T., **Salvaggio, S.** (2025). Transforming Research Through Patient-Centric Design and Innovation. *Outsourcing Pharma*.
- **Salvaggio, S.** Featured interview. *Applied Clinical Trials*, SCOPE Summit 2025 (Orlando).
- **Salvaggio, S.** Featured interview *The Clinical Trial Vanguard*, SCOPE Summit 2024 (Barcelona).
- **Salvaggio, S.** Featured interview *MediMix*, SABCS 2024 (San Antonio).