

**Curriculum vitae****Lionel Perrier****Date of birth:** July 25<sup>th</sup>, 1968 in Villefranche sur Saône      **Citizenship:** French**Work Address:** Centre Léon Bérard, 28 rue Laënnec 69373 LYON cedex 08E-mail: [perrier@gate.cnrs.fr](mailto:perrier@gate.cnrs.fr)

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Website: <https://www.gate.cnrs.fr/lionel-perrier>ORCID iD: [orcid.org/0000-0003-4487-8723](https://orcid.org/0000-0003-4487-8723)**Current position:***Manager Innovations and strategies Unit*, Clinical Research and Innovation Direction (DRCI), Leon Berard Cancer Centre, Lyon, France (January 2015-ongoing)*Member of the Strategy Advisory Board*, Human and Social Sciences Department, Leon Berard Cancer Centre, Lyon, France (October 2020-ongoing)*Member of the Ethics Focus Group*, Leon Berard Cancer Centre, Lyon, France (May 2018-ongoing)*Member of the Economic and Public Health Evaluation Committee (CEESP)*, the French National Authority for Health (HAS), Saint-Denis la Plaine, France (February 2015-ongoing)*Lecturer*, Ecole Centrale de Lyon, France (2014-ongoing), Mines Saint-Etienne & EM Lyon Business School (2019-ongoing), UCLy (Catholic University of Lyon) (2019-ongoing), University of Lyon, France (2007-2022), University of Saint-Etienne (2019-ongoing), Institut d'Etudes Politiques de Grenoble (2019-2022)*Member of the Board OECI Health - Economics Working Group* (October 2019-ongoing)**Professional Experience:***Responsible for Innovations and strategies Unit*, DRCI, Leon Berard Cancer Centre, Lyon, France (March 2015-ongoing)

- Project management: evaluation of innovations in term of efficiency in a context of high institutional expectations and scientific excellence (20 research projects in progress, 7 of which are based on DRCI clinical trials)
- Human resource management, receiving students, and supervising theses (Doctoral School 486 Economics and Management Sciences, Lyon)
- Issuing recommendations (decision support tools, participation in the production of methodological guides, etc.)
- Valorisation of the research activities (communications, publications)
- Tools/data employed: Econometrics, modelling, systematic reviews, Clinical trial data, Real-life data, Datamart tables of health insurance databases, French Hospital Discharge Database

*Engineer-economist*, DRCI, Leon Berard Cancer Centre, Lyon, France (December 2014-February 2015)

- Missions statement and creation of the Innovations and strategies Unit within the DRCI
- Investigation of processes, procedures, operating modes, documents, and indicators used by the clinical research and innovation department of the Léon-Bérard center, and application to the health economic studies

*Engineer-economist*, GATE LSE, UMR-CNRS 5824, Leon Berard Cancer Centre, Lyon, France (October 2010-December 2014)

- Project management (e.g. scientific project director, Health information system, PREPS, Ministry of Health, 2013; Cost effectiveness evaluation for treatment of sarcomas, CONnective Tissue Cancers NETwork to integrate European Experience in Adult and Children (Network of

Excellence funded by the 6th Framework Program of the European commission), Working package 4 Epidemiology, task 3 Medical practice)

**Health economist, GRESAC** (Groupe de Recherche en Economie de la Santé et Réseau en Cancérologie), Cancer Centre Léon Bérard, Lyon, France (March 2002- September 2010)

- Research in Health Economics (e.g. development of a methodology for assessing important investment and operating costs within the European Network for Research in Light Ion Hadron Therapy ENLIGHT)
- Resource management (e.g. human resource, communication and website)

#### **Education:**

- Accreditation to supervise doctoral research (HDR, highest level of French Universities) “*Costs and financing of hospital care: applications to oncology*”, section CNU 05 Sciences économiques, University Lumière Lyon 2, France (date of award: January 29, 2010)
- Ph.D. in Economics “Financing of hospital care and optimal patient’s trajectory in paediatric oncology”, University Lumière Lyon 2, France (date of award: December 14, 2001), Mention très honorable avec félicitations du jury

#### **Professional training:**

- Good Clinical Practice *ICH E6(R2)* training, date of the last certificate: December 2022
- Accreditation to the French nationwide healthcare database (SNDS) Architecture & données du SNIIRAM /SNDS (*REQ-054-AM*) December 2017; SAS Enterprise Guide: prise en main du logiciel et utilisation dans le SNIIRAM (*REQ-178-AM*), April 2018; Données d’extraction DCIR (*REQ-181-AM*) March 2018; EGB Simplifié Echantillon bénéficiaires accessible par SAS (*REQ-086-AM*) February 2019; Formation SNDS avancée utilisateurs (Health Data Hub) August 2022

#### **Scientific societies and networks** (*non-exhaustive list*):

- Member of the GATE LSE, UMR-CNRS 5824, University of Lyon, France
- Member of the national Working groups Evaluation and validation of new indications for access to genomic diagnosis and Health economics, Plan France Médecine Génomique 2025 <https://solidarites-sante.gouv.fr/systeme-de-sante-et-medico-social/recherche-et-innovation/france-genomique>
- Member of the Innovation Research Commission of the national committee of the general directors of the French university hospitals and coordinator of the methodological guide related to calculation and analysis of hospital costs. <https://www.em-consulte.com/revue/RESPE/66/S2/calcul-et-analyse-des-couts-hospitaliers-guide-met>
- Member of the Abstract Review Committee for the International Society For Pharmacoeconomics and Outcomes Research (ISPOR) and the international Health Economics Association (iHEA)

#### **Expertises and evaluations** (*non-exhaustive list*):

- Member of the selection committee for grants “Programme de Recherche Médico-Economique (PRME-N)”, French Ministry of Health
- Expert advisor for grants “Human and social sciences, Epidemiology and Public Health”, National Cancer Institute (INCa) (2012-ongoing)
- Expert Review for *Applied clinical informatics, BMC Public Health, BMC Pulmonary Medicine, BMJ Open, European Journal of Cancer, IEEE Journal of Biomedical and Health Informatics, Pharmacoeconomics & Outcomes Research, Social Science and*

*Medicine, The British Journal of Radiology, The International Journal for Quality in Health Care, Value in Health, etc.*

**Grants (non-exhaustive list):**

- Evaluation of the genome sequencing platforms Auragen and SeqOIA, Ministry of Health (DGOS), research project Plan France Médecine Génomique 2025
- Optimization of sarcoma patients' pathway in France, Ministry of Health (DGOS), research project PRME 2018
- The role of zoledronic acid in the management of vertebral metastases by stereotactic radiotherapy, Ministry of Health (DGOS), research project PRME 2017
- Cost-effectiveness modeling of interventions for informal caregivers, research project Handicap et perte d'autonomie, session 7, IRESP, 2016

**PhD thesis supervision:**

- Wilfried GUETS, *Modélisation de l'aide informelle : approches économiques et applications au dispositif innovant d'accompagnement et de répit des aidants de la métropole de Lyon*, Lyon 2 University. Funding: Institut de Recherche en Santé Publique (IReSP). Date of Defense 7th July 2021. Current position: Analyst Vyoo-Agency, Paris, France
- Marius HUGUET, *Traitement du biais de sélection, estimation de l'effet causal et modélisation microéconomique : une application à la prise en charge des cancers de l'ovaire en France* (co-supervision with X. Joutard, Aix Marseille University), Lyon 2 University. Funding: Lyon 2 University. Date of Defense 8th June 2020. Current position: postdoctorate, Mines Saint-Étienne, France
- Noémie DEFOURNY, *The cost of Radiotherapy in Europe: what does it cost, and how can these data be used to support innovation in European radiotherapy practice?* (co-supervision with Y. Lievens University of Ghent), Ghent University, Belgium. Funding: European Society for Radiotherapy & Oncology (ESTRO). Date of Defense 20th December 2019. Current position: postdoctorate, University of Manchester, UK
- Maria Laura SILVA, *The role of the economic evaluations in health decision making: an application to influenza vaccination*, Lyon 2 University. Funding: Science sans frontières. Date of Defense 7th March 2016. Current position: Associate Professor, University of Bordeaux, France

**Participation as referee / external examiner to PhD theses and HDR defense:**

- Pauline CHAUVIN, *Dynamique temporelle et distribution spatiale des revenus en France : croissance des disparités ou convergence*, Université de Paris, 30 juin 2022 (external examiner)
- Gaëtan Moukoumbi LIPENGUET, *Enjeux économiques du déploiement du système d'information hospitalier au Gabon : le cas du Centre Hospitalier Universitaire de Libreville*, Université de Bordeaux & Université des sciences de la santé du Gabon, 18 octobre 2021, 18 October 2021 (external examiner)
- Abdoul Razak SAWADO, *Contribution à l'analyse économique des technologies de compensation de la perte d'autonomie fonctionnelle liée au vieillissement*, Université de Limoges, 15 September 2021 (referee)
- Oussama BATATA, *Prédiction et simulation de l'épuisement des aidants et organisation des services de répit*, Université de Lyon, 21 December 2020 (external examiner)

- Clément BEYRON, *Impact médico-économique de l'adaptation bayésienne des posologies de la ciclosporine dans l'allogreffe de cellules souches hématopoïétiques en pédiatrie*, University Claude Bernard Lyon 1, 5 October 2020 (external examiner)
- Mathieu GAUTHÉ, *Optimisation médico-économique des stratégies d'utilisation des examens TEP/TDM en imagerie oncologique*, Université de Paris, 15 June 2020 (referee)
- Ambinintsoa Haritiana RALAIDOVY, *Efficiency in health resource allocation: three empirical studies in eastern sub-Saharan Africa and southeast Asia*, 1<sup>st</sup> October 2019 University Clermont Auvergne (external examiner)
- Geneviève PERROCHEAU, *Etude économique randomisée comparant la radiothérapie per-opératoire (RIOP) à la radiothérapie conventionnelle dans le cancer du sein à faible risque*, Conservatoire national des arts et métiers, 19 octobre 2018 (referee)
- Rana MAROUN, *Analyse comparative coût et efficacité des traitements du cancer du rein métastatique : analyse à partir des données de vie réelle et des données d'essais*, Paris-Saclay University, 30 janvier 2018 (referee)
- Omar KANJ, *Evaluation économique de la prise en charge de l'endométriose*, University Clermont Auvergne, 27 septembre 2017 (referee)
- Sabri HAMANA, *Modélisation et simulation des flux d'informations ville-hôpital et de leur impact sur le parcours de soins*, Ecole Nationale des Mines de Saint-Etienne, 6 juillet 2017 (external examiner)

#### Last publications:

- Pillebout E, Durand-Zaleski I, Farge L, Perrier L, de Chaisemartin C, Dupont JCK, Behaghel L, Rochaix L. Multicentre, randomised, economic evaluation of a web-based interactive education platform, simple or enhanced, for patients with end-stage renal disease: the PIC-R trial protocol. *BMJ Open*, 2022 Dec 9;12(12):e062613
- Huguet M, Sarazin M, Perrier L, Augusto V. How We Can Reap the Full Benefit of Teleconsultations: Economic Evaluation Combined With a Performance Evaluation Through a Discrete-Event Simulation. *J Med Internet Res*. 2022 May 20;24(5):e32002.
  - Huguet M, Joutard X, Ray-Coquard I, Perrier L. What underlies the observed hospital volume-outcome relationship? *BMC Health Serv Res*. 2022 Jan 14;22(1):70.
  - Gernier F, Ahmed-Lecheheb D, Pautier P, Floquet A, Nadeau C, Frank S, Alexandre J, Selle F, Berton-Rigaud D, Kalbacher E, Orfeuvre H, Lortholary A, Augereau P, Labombarda F, Perrier L, Grellard JM, Licaj I, Clarisse B, Savoye AM, Bourien H, De La Motte Rouge T, Kurtz JE, Kerdja K, Lelaidier A, Charreton A, Ray-Coquard I, Joly F. "Chronic fatigue, quality of life and long-term side-effects of chemotherapy in patients treated for non-epithelial ovarian cancer: national case-control protocol study of the GINECO-Vivrovaire rare tumors INCa French network for rare malignant ovarian tumors". *BMC Cancer*. 2021 Oct 26;21(1):1147.
  - Raimond V, Kaltenbach E, Adam C, Lazzarotto S, Le Galès C, Perrier L, Wittwer J. Challenges raised by the economic evaluation of CAR-T-cell therapies. The review by the French National Authority for Health. *Bull Cancer*. 2021 Oct 7:S0007-4551(21)00308-8.
  - Huguet M, Raimond V, Kaltenbach E, Augusto V, Perrier L. How much does the hospital stay for infusion of anti-CD19 CAR-T cells cost to the French National Health Insurance? *Bull Cancer*. 2021 Sep 21:S0007-4551(21)00259-9.

- Guets W, Perrier L. Determinants of the need for respite according to the characteristics of informal carers of elderly people at home: results from the 2015 French national survey. *BMC Health Serv Res*. 2021 Sep 21;21(1):995.
- Touillaud M, Fournier B, Pérol O, Delrieu L, Maire A, Belladame E, Pérol D, Perrier L, Preau M, Leroy T, Fassier JB, Fillol F, Pascal S, Durand T, Fervers B. Connected device and therapeutic patient education to promote physical activity among women with localised breast cancer (DISCO trial): protocol for a multicentre 2×2 factorial randomised controlled trial. *BMJ Open*. 2021 Sep 13;11(9):e045448.
- Thureau S, Marchesi V, Vieillard MH, Perrier L, Lisbona A, Leheurteur M, Tredaniel J, Culine S, Dubray B, Bonnet N, Asselain B, Salleron J, Faivre JC. Efficacy of extracranial stereotactic body radiation therapy (SBRT) added to standard treatment in patients with solid tumors (breast, prostate and non-small cell lung cancer) with up to 3 bone-only metastases: study protocol for a randomised phase III trial (STEREO-OS). *BMC Cancer*. 2021 Feb 4;21(1):117.
- Giraud P, Giraud P, Nicolas E, Boisselier P, Alfonsi M, Rives M, Bardet E, Calugaru V, Noel G, Chajon E, Pommier P, Morelle M, Perrier L, Liem X, Burgun A, Bibault JE. Interpretable Machine Learning Model for Locoregional Relapse Prediction in Oropharyngeal Cancers. *Cancers (Basel)*. 2020 Dec 28;13(1):57.
- El Khal M, Perrier L, Carretier J, Touillaud M, Hureau M, Pérol D, Fervers B. The cost of the therapeutic education program "Eat better, move more through nutrition education" in patients with breast cancer. *Bull Cancer*. 2020 Dec;107(12):1252-1259.
- Claude L, Morelle M, Mahé MA, Pasquier D, Boisselier P, Bondiau PY, Touboul E, Peignaux-Casasnovas K, Martel-Lafay I, Gassa F, Perrier L, Dussart S, Beckendorf V. A comparison of two modalities of stereotactic body radiation therapy for peripheral early-stage non-small cell lung cancer: results of a prospective French study. *Br J Radiol*. 2020 Dec 1;93(1116):20200256.
- Amadou A, Coudon T, Praud D, Salizzoni P, Leffondre K, Lévêque E, Boutron-Ruault MC, Danjou AMN, Morelli X, Le Cornet C, Perrier L, Couvidat F, Bessagnet B, Caudeville J, Faure E, Mancini FR, Gulliver J, Severi G, Fervers B. Chronic Low-Dose Exposure to Xenoestrogen Ambient Air Pollutants and Breast Cancer Risk: XENAIR Protocol for a Case-Control Study Nested Within the French E3N Cohort. *JMIR Res Protoc*. 2020 Sep 15;9(9):e15167.
- Coquerelle S, Darlington M, Michel M, Durand M, Borget I, Baffert S, Marino P, Perrier L, Durand-Zaleski I; NGSEco Group. Impact of Next Generation Sequencing on Clinical Practice in Oncology in France: Better Genetic Profiles for Patients Improve Access to Experimental Treatments. *Value Health*. 2020 Jul;23(7):898-906.
- Guets W, Al-Janabi H, Perrier L. Cost-Utility Analyses of Interventions for Informal Carers: A Systematic and Critical Review. *Pharmacoeconomics*. 2020 Apr;38(4):341-356.
- Perrier L, Foucaut AM, Morelle M, Touillaud M, Kempf-Lépine AS, Heinz D, Gomez F, Meyrand R, Baudinet C, Berthouze S, Reynes E, Carretier J, Guillemaut S, Pérol D, Trédan O, Philip T, Bachmann P, Fervers B. Cost-effectiveness of an exercise and nutritional intervention versus usual nutritional care during adjuvant treatment for localized breast cancer: the PASAPAS randomized controlled trial. *Support Care Cancer*. 2020 Jun;28(6):2829-2842.
- Defourny N, Monten C, Grau C, Lievens Y, Perrier L. Critical review and quality-assessment of cost analyses in radiotherapy: How reliable are the data? *Radiother Oncol*. 2019 Dec;141:14-26. doi: 10.1016/j.radonc.2019.09.020.

- Defourny N, Perrier L, Borrás JM, Coffey M, Corral J, Hoozée S, Loon JV, Grau C, Lievens Y. National costs and resource requirements of external beam radiotherapy: A time-driven activity-based costing model from the ESTRO-HERO project. *Radiother Oncol*. 2019 Sep;138:187-194. doi: 10.1016/j.radonc.2019.06.015.
- Foucaut AM, Morelle M, Kempf-Lépine AS, Baudinet C, Meyrand R, Guillemaut S, Metzger S, Bourne-Branchu V, Grinand E, Chabaud S, Pérol D, Carretier J, Berthouze SE, Reynes E, Perrier L, Rebattu P, Heudel PE, Bachelot T, Bachmann P, Fervers B, Trédan O, Touillaud M. Feasibility of an exercise and nutritional intervention for weight management during adjuvant treatment for localized breast cancer: the PASAPAS randomized controlled trial. *Support Care Cancer*. 2019 Sep;27(9):3449-3461.