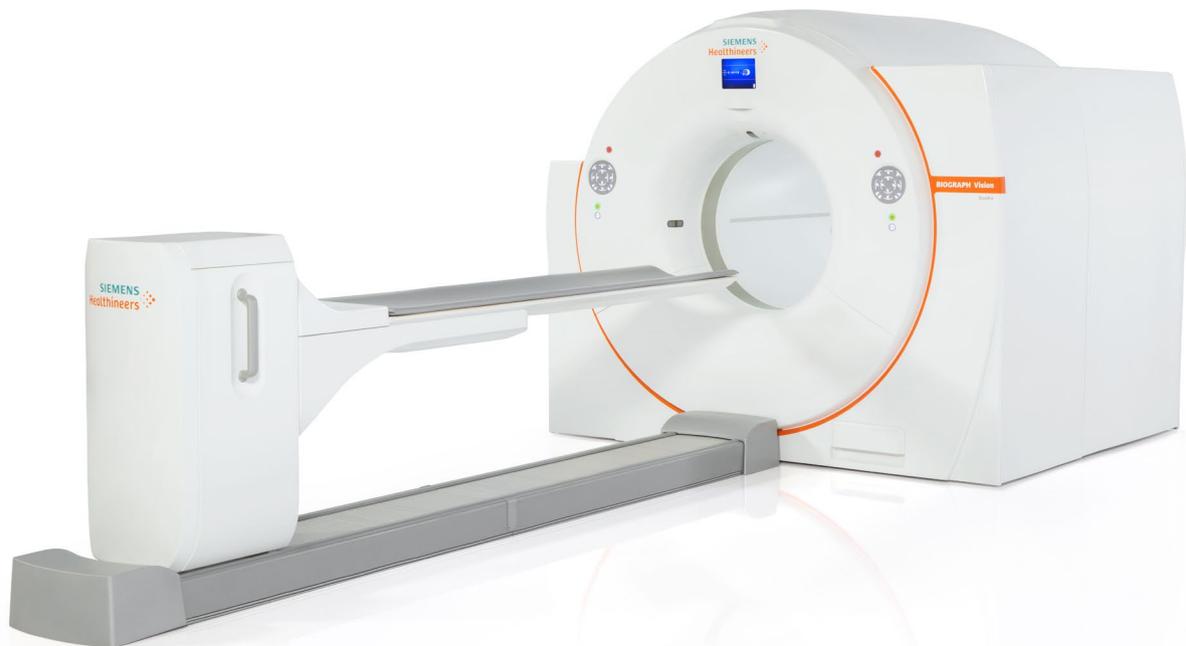


# Large axial field of view PET/CT

**Overview of selected publications**  
As of August 2025



## **Content**

1. Applications/Artificial intelligence	3
2. Cardiac	5
3. General	5
4. Image quality/Performance	7
5. Multiparametric PET imaging	9
6. Neurology	11
7. Oncology/ImmunoPET	11
8. Pediatric	15

# 1. Applications/Artificial intelligence

## Biograph Vision Quadra

### Development of a deep learning method for CT-free correction for an ultra-long axial field of view PET scanner

Song Xue, Karl Peter Bohn, Rui Guo, Hasan Sari, Marco Viscione, Axel Rominger, Biao Li, Kuangyu Shi, (2021). *Institute of Electrical and Electronics Engineers* <https://ieeexplore.ieee.org/abstract/document/9630590>

## Biograph Vision Quadra

### A CT-less approach to quantitative PET imaging using the LSO intrinsic radiation for long-axial FOV PET scanners

Mohammadreza Teimoorisichani, Vladimir Panin, Harold Rothfuss, Hasan Sari, Axel Rominger, Maurizio Conti, (2021). *Medical Physics* <https://aapm.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/mp.15376>

## Biograph Vision Quadra

### Using LSO background radiation for CT-less attenuation correction of PET data in long axial FOV PET scanners

Mohammadreza Teimoorisichani, Hasan Sari, Vladimir Panin, Deepak Bharkhada, Axel Rominger, Maurizio Conti, (2021). *The Journal of Nuclear Medicine* [https://jnm.snmjournals.org/content/62/supplement\\_1/1530.abstract](https://jnm.snmjournals.org/content/62/supplement_1/1530.abstract)

## Biograph Vision Quadra

### Quantitative evaluation of a deep learning-based framework to generate whole-body attenuation maps using LSO background radiation in long axial FOV PET scanners

Hasan Sari, Mohammadreza Teimoorisichani, Clemens Mingels, Ian Alberts, Vladimir Panin, Deepak Bharkhada, Song Xue, George Prenosil, Kuangyu Shi, Maurizio Conti, Axel Rominger, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05909-3>

## Biograph Vision Quadra

### Using domain knowledge for robust and generalizable deep learning-based CT-free PET attenuation and scatter correction

Rui Guo, Song Xue, Jiayi Hu, Hasan Sari, Clemens Mingels, Konstantinos Zeimpekis, George Prenosil, Yue Wang, Yu Zhang, Marco Viscione, Raphael Sznitman, Axel Rominger, Biao Li, Kuangyu Shi, (2022). *Nature Communications* <https://doi.org/10.1038/s41467-022-33562-9>

## Biograph Vision Quadra

### An encoder-decoder network for direct image reconstruction on sinograms of a long axial field of view PET

Ruiyao Ma, Jiayi Hu, Hasan Sari, Song Xue, Clemens Mingels, Marco Viscione, Venkata Sai Sundar Kandarpa, Wei Bo Li, Dimitris Visvikis, Rui Qiu, Axel Rominger, Junli Li, Kuangyu Shi, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05861-2>

## Biograph Vision Quadra

### A deep neural network for parametric image reconstruction on a large axial field-of-view PET

Y Li, J Hu, H Sari, S Xue, R Ma, S Kandarpa, D Visvikis, A Rominger, H Liu, K Shi, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-06003-4>

## Biograph Vision Quadra

### Attenuation correction of long axial field-of-view positron emission tomography using synthetic computed tomography derived from the emission data: application to low-count studies and multiple tracers

Maria Elkjær Montgomery, Flemming Littrup Andersen, Sabrina Honoré d'Este, Nanna Overbeck, Per Karkov Cramon, Ian Law, Barbara Malene Fischer, Claes Nøhr Ladefoged, (2023). *Diagnostics* <https://www.mdpi.com/2075-4418/13/24/3661>

## Biograph Vision Quadra

### Ultra-low dose CT scanning for PET/CT

Samaneh Mostafapour, Marcel Greuter, Johannes H. van Snick, Adrienne H. Brouwers, Rudi A. J. O. Dierckx, Joyce van Sluis, Adriaan A. Lammertsma, Charalampos Tsoumpas, (2023). *Medical Physics* <https://aapm.onlinelibrary.wiley.com/doi/epdf/10.1002/mp.16862>

## Biograph Vision Quadra

### Long axial field of view PET/CT in critically ill patients: lessons from a case report

J. H. van Snick, B. van Leer, M. W. N. Nijsten, J. Pillay, R. H. J. A. Slart, A. W. J. M. Glaudemans, N. D. van Rijsewijk, (2024). *Frontiers in Medicine* <https://doi.org/10.3389/fmed.2023.1347791>

### Biograph Vision Quadra

#### Impact of re-framing high-dose scans for the training of neural networks for denoising low-dose PET

E. A. Elmoujarkach, C. Pommranz, J. Cabello, F. P. Schmidt, M. Rafecas, (2024). *IEEE* <https://doi.org/10.1109/nss/mic/rtsd57108.2024.10657465>

### Biograph Vision Quadra

#### A simulation framework to establish ground truth for motion correction in total-body PET: initial evaluation for complex respiratory motion

W. Lan, H. P. Vo, C. Pommranz, E. Elmoujarkach, J. Cabello, N. Birge, P. Schleyer, M. Rafecas, C. Lafougère, F. Schmidt, (2024). *IEEE* <https://doi.org/10.1109/nss/mic/rtsd57108.2024.10656116>

### Biograph Vision Quadra

#### An accurate attenuation and scatter correction method for PET/MR scanners with Lutetium-based scintillators

M. Teimoorisichani, H. Sari, J. Hamill, V. Panin, P. Schleyer, A. Rominger, M. Conti, (2024). *IEEE* <https://doi.org/10.1109/nss/mic/rtsd57108.2024.10656300>

### Biograph Vision Quadra

#### A deep learning method for the recovery of standard-dose imaging quality from ultra-low-dose PET on wavelet domain

Xue, Song; Liu, Fanxuan; Wang, Hanzhong; Zhu, Hong; Sari, Hasan; Viscione, Marco; Sznitman, Raphael; Rominger, Axel; Guo, Rui; Li, Biao; Shi, Kuangyu, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06994-2>

### Biograph Vision Quadra

#### PET image denoising based on 3D denoising diffusion probabilistic model: evaluations on total-body datasets

Boxiao Yu, Savas Ozdemir, Yafei Dong, Wei Shao, Kuangyu Shi, Kuang Gong, (2024). *Medical Image Computing and Computer Assisted Intervention – MICCAI 2024* [https://link.springer.com/chapter/10.1007/978-3-031-72104-5\\_52](https://link.springer.com/chapter/10.1007/978-3-031-72104-5_52)

### Biograph Vision Quadra

#### CT-free attenuation correction in pediatric long axial field-of-view positron emission tomography using synthetic CT from emission data

Maria Elkjær Montgomery, Flemming Littrup Andersen, René Mathiasen, Lise Borgwardt, Kim Francis Andersen, Claes Nøhr Ladefoged, (2024). *Diagnostics* <https://www.mdpi.com/2075-4418/14/24/2788>

### Biograph Vision Quadra

#### ParaPET: non-invasive deep learning method for direct parametric brain PET reconstruction using histomages

Rajat Vashistha, Hamed Moradi, Amanda Hammond, Kieran O'Brien, Axel Rominger, Hasan Sari, Kuangyu Shi, Viktor Vegh, David Reutens, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://rdocu.be/eyTWU>

### Biograph Vision Quadra

#### Feasibility of an ultra-low-dose PET scan protocol with CT-Based and LSO-TX-based attenuation correction using a long-axial-field-of-view PET/CT scanner

Hasan Sari, Mohammadreza Teimoorisichani, Marco Viscione, Clemens Mingels, Robert Seifert, Kuangyu Shi, Michael Morris, Eliot Siegel, Babak Saboury, Thomas Pyka, Axel Rominger, (2025). *The Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.124.268380>

### Biograph Vision Quadra

#### Evaluation of deep learning-based scatter correction on a long-axial field-of-view PET scanner

Baptiste Laurent, Alexandre Bousse, Thibaut Merlin, Axel Rominger, Kuangyu Shi, Dimitris Visvikis, (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-025-07120-6>

### Biograph Vision Quadra

#### A digital twin of the Biograph Vision Quadra long axial field of view PET/CT: Monte Carlo simulation and image reconstruction framework

Christian M. Pommranz, Ezzat A. Elmoujarkach, Wenhong Lan, Jorge Cabello, Pia M. Linder, Hong Phuc Vo, Julia G. Mannheim, Andrea Santangelo, Maurizio Conti, Christian la Fougère, Magdalena Rafecas, Fabian P. Schmidt, (2025) *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-025-00738-3>

## 2. Cardiac

### Biograph Vision Quadra

#### The future of atherosclerosis assessment: dynamic and quantitative whole-body PET cardiovascular imaging

Federico Caobelli, Christoph Gräni, Axel Rominger, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-023-06292-3>

### Biograph Vision

#### First-time rest-stress dynamic whole-body $^{82}\text{Rb}$ -PET imaging using a long axial field-of-view PET/CT scanner

Caobelli F., Seibel S., Krieger K., et al. *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06242-z>

### Biograph Vision Quadra

#### Oral administration of PET tracers: current status

Giordana Salvi de Souza, Dimitri B A Mantovani, Pascale Mossel, Bartholomeus C M Haarman, Ana Maria Marques da Silva, Hendrikus H Boersma, Cristiane R G Furini, Adriaan A Lammertsma, Charalampos Tsoumpas, Gert Luurtsema, (2023). *Journal of Controlled Release* <https://doi.org/10.1016/j.jconrel.2023.04.008>

### Biograph Vision Quadra

#### Internal dosimetry study of $^{82}\text{Rb}$ -Cl using a long axial field-of-view PET/CT

Lorenzo Mercolli, Carola Bregenzer, Markus Diemling, Clemens Mingels, Axel Rominger, Hasan Sari, Sigrid Seibel, Antti Sohlberg, Marco Viscione, Federico Caobelli, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06660-7>

### Biograph Vision Quadra

#### Long-axial field-of-view PET/CT for the assessment of inflammation in calcified coronary artery plaques with $^{68}\text{Ga}$ Ga-DOTA-TOC

Clemens Mingels, Hasan Sari, Nasir Gözlügöl, Carola Bregenzer, Luisa Knappe, Korbinian Krieger, Ali Afshar-Oromieh, Thomas Pyka, Lorenzo Nardo, Christoph Gräni, Ian Alberts, Axel Rominger, Federico Caobelli, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06435-6>

### Biograph Vision Quadra

#### Device-less data-driven cardiac and respiratory gating using LAFOV PET histo images

Nanna Overbeck, Thomas Lund Andersen, Anders Bertil Rodell, Jorge Cabello, Noah Birge, Paul Schleyer, Maurizio Conti, Kirsten Korsholm, Barbara Malene Fischer, Flemming Littrup Andersen, Ulrich Lindberg, (2024). *Diagnostics* <https://doi.org/10.3390/diagnostics14182055>

### Biograph Vision Quadra

#### Long axial field of view PET/CT: technical aspects in cardiovascular diseases

Tonantzin Samara Martinez-Lucio, Oscar Isaac Mendoza-Ibañez, Wanling Liu, Samaneh Mostafapour, Zekai Li, Laura Providência, Giordana Salvi de Souza, Philipp Mohr, Magdalena M Dobrolinska, Bram van Leer, Hendrea S A Tingen, Joyce van Sluis, Charalampos Tsoumpas, Andor W J M Glaudemans, Klaas Pieter Koopmans, Adriaan A Lammertsma, Riemer H J A Slart, (2025). *Seminars in Nuclear Medicine* <https://doi.org/10.1053/j.semnuclmed.2024.10.009>

## 3. General

### Biograph Vision Quadra

#### Long axial field of view PET scanners: a road map to implementation and new possibilities

Riemer H. J. A. Slart, Charalampos Tsoumpas, Andor W. J. M. Glaudemans, Walter Noordzij, Antoon T. M. Willemsen, Ronald J. H. Borra, Rudi A. J. O. Dierckx, Adriaan A. Lammertsma, (2021). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/content/pdf/10.1007/s00259-021-05461-6.pdf>

### Biograph Vision Quadra

#### Whole-Body PET Imaging: a catalyst for whole-person research?

Lalith Kumar Shiyam Sundar, Marcus Hacker, Thomas Beyer, (2022). *The Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.122.264555>

### Biograph Vision Quadra

#### Long axial field-of-view PET/CT devices: are we ready for the technological revolution?

Luca Filippi, Antonia Dimitrakopoulou-Strauss, Laura Evangelista, Orazio Schillaci, (2022). *Expert Review of Medical Devices* <https://doi.org/10.1080/17434440.2022.2141111>

### Biograph Vision Quadra

#### Will ultra-extended field-of-view scanners be an expensive folly or the next clinical standard for PET/CT?

Rodney J. Hicks and Annick D. Van den Abbeele, (2022). *Cancer Imaging* <https://doi.org/10.1186/s40644-022-00486-y>

### Biograph Vision Quadra

#### Long-axial field-of-view PET/CT: perspectives and review of a revolutionary development in nuclear medicine based on clinical experience in over 7000 patients

Ian Alberts, Hasan Sari, Clemens Mingels, Ali Afshar-Oromieh, Thomas Pyka, Kuangyu Shi, Axel Rominger, (2023) *Cancer Imaging* <https://doi.org/10.1186/s40644-023-00540-3>

### Biograph Vision Quadra

#### So, you want to get into “total-body” PET/CT scanning? An installation guide for beginners!

Rodney J. Hicks, (2023). *Cancer Imaging* <https://doi.org/10.1186/s40644-023-00542-1>

### Biograph Vision Quadra

#### Total-body PET/CT or LAFOV PET/CT? Axial field-of-view clinical classification

Clemens Mingels, Federico Caobelli, Abass Alavi, Christos Sachpekidis, Meiyun Wang, Hande Nalbant, Austin R. Pantel, Hongcheng Shi, Axel Rominger, Lorenzo Nardo, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06534-4>

### Biograph Vision Quadra

#### Current and future use of long axial field-of-view Positron Emission Tomography/Computed Tomography scanners in clinical oncology

Mostafa Roya, Samaneh Mostafapour, Philipp Mohr, Laura Providência, Zekai Li, Johannes H. van Snick, Adrienne H. Brouwers, Walter Noordzij, Antoon T. M. Willemsen, Rudi A. J. O. Dierckx, Adriaan A. Lammertsma, Andor W. J. M. Glaudemans, Charalampos Tsoumpas, Riemer H. J. A. Slart, and Joyce van Sluis, (2023). *Cancers* <https://doi.org/10.3390/cancers15215173>

### Biograph Vision Quadra

#### Oral administration of PET tracers: current status

Giordana Salvi de Souza, Dimitri B A Mantovani, Pascal Mossel, Bartholomeus C M Haarman, Ana Maria Marques da Silva, Hendrikus H Boersma, Cristiane R G Furini, Adriaan A Lammertsma, Charalampos Tsoumpas, Gert Luurtsema, (2023). *Journal of Controlled Release* <https://doi.org/10.1016/j.jconrel.2023.04.008>

### Biograph Vision Quadra

#### Positronium lifetime validation measurements using a long-axial field-of-view positron emission tomography scanner

William M. Steinberger, Lorenzo Mercolli, Johannes Breuer, Hasan Sari, Szymon Parzych, Szymon Niedzwiecki, Gabriela Lapkiewicz, Pawel Moskal, Ewa Stepien, Axel Rominger, Kuangyu Shi and Maurizio Conti, (2024). *European Journal of Nuclear Medicine and Molecular Imaging Physics* (2024) 11:76 <https://doi.org/10.1186/s40658-024-00678-4>

### Biograph Vision Quadra

#### Total-Body PET/CT: pros and cons

Rodney J. Hicks, AM, MBBS (Hons), MD, FRACP, FAAHMS, FICIS, Robert E. Ware, MBBS, FCP, FAANMS, Jason Callahan, BAppSci (MedRad), PhD, (2024). *Elsevier* <https://doi.org/10.1053/j.semnuclmed.2024.07.003>

### Biograph Vision Quadra

#### Extracting value from total-body PET/CT image data—the emerging role of artificial intelligence

Lalith Kumar Shiyam Sundar, Sebastian Gutschmayer, Marcel Maenle, Thomas Beyer, (2024). *Cancer Imaging* <https://doi.org/10.1186/s40644-024-00684-w>

### Biograph Vision Quadra

#### A cutting-edge technology for the future of nuclear medicine

Andor W.J.M. Glaudemans, Adriaan A. Lammertsma, Simon R. Cherry, Paola A. Erba, Axel Rominger, Rudi A.J.O. Dierckx, Ronald Boellaard, Alexander Hammers, Rodney J. Hicks, Riemer H.J.A. Slart, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-07028-7>

#### **Biograph Vision Quadra**

##### **The Australian National Total-Body PET facility—a shared resource and risk model for implementing total-body PET**

Dale L. Bailey, Steven R. Meikle, Fernando Calamante, Georgios Angelis, Paul J. Roach, Simon P. Ringer, (2025). *The Journal of Nuclear Medicine* <https://jnm.snmjournals.org/content/early/2025/05/15/jnumed.125.269859>

#### **Biograph Vision Quadra**

##### **Feasibility of in vivo small animal imaging using a clinical total-body PET/CT system**

Julia G. Mannheim, Wenhong Lan, Maurizio Conti, Franziska Siedler, Marcel A. Krueger, Kristina Herfert, Christian la Fougère, Fabian P. Schmidt, (2025). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-025-00782-z>

#### **Biograph Vision Quadra**

##### **Total-body PET/CT: challenges and opportunities**

Clemens Mingels, Kevin J Chung, Austin R Pantel, Axel Rominger, Ian Alberts, Benjamin A Spencer, Lorenzo Nardo, Thomas Pyka, (2025). *Seminars in Nuclear Medicine* <https://doi.org/10.1053/j.semnuclmed.2024.08.003>

#### **Biograph Vision Quadra**

##### **Is long-axial-field-of-view PET/CT cost-effective? An international health-economic analysis**

Ian Alberts, Stuart More, Karen Knapp, Riccardo Mei, Stefano Fanti, Clemens Mingels, Lorenzo Nardo, Nii Boye Hammond, Harish Nagaraj, Axel Rominger, Gary J.R. Cook, Don Wilson, (2025). *The Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.124.269203>

## **4. Image quality/Performance**

#### **Biograph Vision Quadra**

##### **Clinical performance of long axial field of view PET/CT: a head-to-head intra-individual comparison of the Biograph Vision Quadra with the Biograph Vision PET/CT**

Ian Alberts, Jan-Niklas Hünermund, George Prenosil, Clemens Mingels, Karl Peter Bohn, Marco Viscione, Hasan Sari, Bernd Vollnberg, Kuangyu Shi, Ali Afshar-Oromieh, Axel Rominger, (2021). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-021-05282-7>

#### **Biograph Vision Quadra**

##### **Performance characteristics of the Biograph Vision Quadra PET/CT system with a long axial field of view using the NEMA NU 2-2018 Standard**

George A. Prenosil, Hasan Sari, Markus Fürstner, Ali Afshar-Oromieh, Kuangyu Shi, Axel Rominger, Michael Hentschel, (2021). *The Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.121.261972>

#### **Biograph Vision Quadra**

##### **Exposure stability of quantitative Fluorine-18 measurements on the Biograph Vision Quadra PET/CT system**

George Prenosil, Michael Hentschel, Thilo Weitzel, Hasan Sari, Kuangyu Shi, Axel Rominger, (2021). *Research Square* <https://doi.org/10.21203/rs.3.rs-864693/v1>

#### **Biograph Vision Quadra**

##### **EARL compliance measurements on the Biograph Vision Quadra PET/CT system with a long axial field of view**

George A. Prenosil, Michael Hentschel, Thilo Weitzel, Hasan Sari, Kuangyu Shi, Ali Afshar-Oromieh, Axel Rominger, (2022). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-022-00455-1>

#### **Biograph Vision Quadra**

##### **EARL compliance and imaging optimisation on the Biograph Vision Quadra PET/CT using phantom and clinical data**

Joyce van Sluis, Johannes H. van Snick, Adrienne H. Brouwers, Walter Noordzij, Rudi A. J. O. Dierckx, Ronald J. H. Borra, Riemer H. J. A. Slart, Adriaan A. Lammertsma, Andor W. J. M. Glaudemans, Ronald Boellaard, Charalampos Tsoumpas, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05919-1>

### Biograph Vision Quadra

#### Image quality assessment along the one metre axial field-of-view of the total-body PET/CT system for <sup>18</sup>F-FDG

Ivo Rausch, Julia G. Mannheim, Jürgen Kupferschläger, Christian la Fougère, Fabian P. Schmidt, (2022). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-022-00516-5>

### Biograph Vision Quadra

#### Impact of the new ultra-high sensitivity mode in a long axial field-of-view PET/CT

Clemens Mingels, Sabine Weidner, Hasan Sari, Dorothee Buesser, Konstantinos Zeimpekis, Kuangyu Shi, Ian Alberts, Axel Rominger, (2023). *Annals of Nuclear Medicine* <https://link.springer.com/article/10.1007/s12149-023-01827-y>

### Biograph Vision Quadra

#### Characterization of the partial volume effect along the axial field-of-view of the Biograph Vision Quadra total-body PET/CT system for multiple isotopes

Julia G. Mannheim, Ivo Rausch, Maurizio Conti, Christian la Fougère, Fabian P. Schmidt, (2023). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-023-00554-7>

### Biograph Vision Quadra

#### Phantom-based evaluation of yttrium-90 datasets using Biograph Vision Quadra

Konstantinos G. Zeimpekis, Lorenzo Mercolli, Maurizio Conti, Hasan Sari, George Prenosil, Kuangyu Shi, Axel Rominger, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-06074-3>

### Biograph Vision Quadra

#### Image quality and quantitative PET parameters of low-dose <sup>18</sup>F-FDG PET in a long axial field-of-view PET/CT scanner

Eduardo Calderón, Fabian P. Schmidt, Wenhong Lan, Salvador Castaneda-Vega, Andreas S. Brendlin, Nils F. Trautwein, Helmut Dittmann, Christian la Fougère, Lena Sophie Kiefer, (2023). *Diagnostics* <https://doi.org/10.3390/diagnostics13203240>

### Biograph Vision Quadra

#### Impact of the maximum ring difference on image quality and noise characteristics of a total-body PET/CT scanner

F P Schmidt, J G Mannheim, P M Linder, P Will, L S Kiefer, M Conti, C la Fougère, I Rausch, (2023). *Elsevier* <https://doi.org/10.1016/j.zemedi.2023.09.001>

### Biograph Vision Quadra

#### Mitigating SUV uncertainties using total body PET imaging

Charlotte L. C. Smith, Gerben J. C. Zwezerijnen, Marijke E. den Hollander, Jolijn Weijland, Maqsood Yaqub, Ronald Boellaard, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-023-06503-x>

### Biograph Vision Quadra

#### Potential clinical impact of LAFOV PET/CT: a systematic evaluation of image quality and lesion detection

Sabrina Honoré d'Este, Flemming Littrup Andersen, Julie Bjerglund Andersen, Annika Loft Jakobsen, Eunice Sanchez Saxtoft, Christina Schulze, Naja Liv Hansen, Kim Francis Andersen, Michala Holm Reichkendler, Liselotte Højgaard, Barbara Malene Fischer, (2024). *Diagnostics* <https://doi.org/10.3390/diagnostics13213295>

### Biograph Vision Quadra

#### Clinical performance comparison of a long versus a short axial field-of-view PET/CT Using EARL-compliant reconstructions

Mostafa Roya, Johannes H van Snick, Riemer H J A Slart, Walter Noordzij, Gilles N Stormezand, Antoon T M Willemsen, Ronald Boellaard, Andor W J M Glaudemans, Charalampos Tsoumpas, Joyce van Sluis, (2024). *Molecular Imaging and Biology* <https://doi.org/10.1007/s11307-024-01939-5>

### Biograph Vision Quadra

#### A retrospective comparison of <sup>18</sup>F-FDG radiation dose following a transition from conventional to long axial field of view PET/CT

Wei-Ting Jacky Chen, William I. D. Rae, Peter L. Kench, Kathy P. Willowson, Dale L. Bailey, Elizabeth A. Bailey, Heidi Fearnside, Eleanor Kelliher, Steven R. Meikle, (2025). *Physical and Engineering Sciences in Medicine* <https://doi.org/10.1007/s13246-025-01588-0>

## 5. Multiparametric PET imaging

### Biograph Vision Quadra

#### Kinetic modelling of dynamic $^{18}\text{F}$ -FDG datasets from long axial field-of-view PET scanner

Hasan Sari, Jimin Hong, Lars Eriksson, Kuangyu Shi, Maurizio Conti, Ian Alberts, Paul Cumming, Axel Rominger, (2021). *The Journal of Nuclear Medicine* [https://jnm.snmjournals.org/content/62/supplement\\_1/1405](https://jnm.snmjournals.org/content/62/supplement_1/1405)

### Biograph Vision

#### Clinical feasibility and impact of fully automated multiparametric PET imaging using direct Patlak reconstruction: evaluation of 103 dynamic whole-body $^{18}\text{F}$ -FDG PET/CT scans

Dias AH., Pedersen MF., Danielsen H., Munk OL., Gormsen LC., (2021). *European Journal of Nuclear Medicine and Molecular Imaging* <https://pubmed.ncbi.nlm.nih.gov/32894338/>

### Biograph Vision Quadra

#### Parametric imaging with dynamic PET for oncological applications: protocols, interpretation, current applications and limitations for clinical use

Antonia Dimitrakopoulou-Strauss, MD Leyun Pan, PhD, Christos Sachpekidis, MD, (2021). *Elsevier* <https://doi.org/10.1053/j.semnuclmed.2021.10.002>

### Biograph Vision Quadra

#### First results on kinetic modelling and parametric imaging of dynamic $^{18}\text{F}$ -FDG datasets from a long axial FOV PET scanner in oncological patients

Riemer H. J. A. Slart, Charalampos Tsoumpas, Andor W. J. M. Glaudemans, Walter Noordzij, Antoon T. M. Willemsen, Ronald J. H. Borra, Rudi A. J. O. Dierckx, Adriaan A. Lammertsma, (2021). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/content/pdf/10.1007/s00259-021-05461-6.pdf>

### Biograph Vision

#### Clinical validation of a population-based input function for 20-minute dynamic whole-body $^{18}\text{F}$ -FDG multiparametric PET imaging

André H. Dias, Anne M. Smith, Vijay Shah, David Pigg, Lars C. Gormsen, Ole L. Munk, (2022). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-022-00490-y>

### Biograph Vision Quadra

#### First results on kinetic modelling and parametric imaging of dynamic $^{18}\text{F}$ -FDG datasets from a long axial FOV PET scanner in oncological patients

Hasan Sari, Clemens Mingels, Ian Alberts, Jicun Hu, Dorothee Buesser, Vijay Shah, Robin Schepers, Patrik Caluori, Vladimir Panin, Maurizio Conti, Ali Afshar-Oromieh, Kuangyu Shi, Lars Eriksson, Axel Rominger, Paul Cumming, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-021-05623-6>

### Biograph Vision Quadra

#### Abbreviated scan protocols to capture $^{18}\text{F}$ -FDG kinetics for long axial FOV PET scanners

Varsha Viswanath, Hasan Sari, Austin R. Pantel, Maurizio Conti, Margaret E. Daube-Witherspoon, Clemens Mingels, Ian Alberts, Lars Eriksson, Kuangyu Shi, Axel Rominger, Joel S. Karp, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05747-3>

### Biograph Vision Quadra

#### Shortened duration whole body $^{18}\text{F}$ -FDG PET Patlak imaging on the Biograph Vision Quadra PET/CT using a population-averaged input function

Joyce van Sluis, (2022). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-022-00504-9>

### Biograph Vision

#### Normal values for $^{18}\text{F}$ -FDG uptake in organs and tissues measured by dynamic whole body multiparametric FDG PET in 126 patients

Dias AH, Hansen AK, Munk OL, Gormsen LC. *EJNMMI Res.* 2022 Mar 7;12(1):15 <https://pubmed.ncbi.nlm.nih.gov/35254514/>

### Biograph Vision Quadra

#### Feasibility of using abbreviated scan protocols with population-based input functions for accurate kinetic modeling of <sup>18</sup>F-FDG datasets from a long axial FOV PET scanner

Sari, H., Eriksson, L., Mingels, C. et al. *European Journal of Nuclear Medicine and Molecular Imaging* 50, 257–265 (2023) <https://doi.org/10.1007/s00259-022-05983-7>

### Biograph Vision

#### Multiparametric dynamic whole-body PSMA PET/CT using <sup>68</sup>Ga Ga-PSMA-11 and <sup>18</sup>F-PSMA-1007

André H. Dias, Mads R. Jochumsen, Helle D. Zacho, Ole L. Munk, Lars C. Gormsen, (2023). *European Journal of Nuclear Medicine and Molecular Imaging Research* <https://doi.org/10.1186/s13550-023-00981-8>

### Biograph Vision Quadra

#### Optimization and impact of sensitivity mode on abbreviated scan protocols with population-based input function for parametric imaging of <sup>18</sup>F-FDG for a long axial FOV PET scanner

W. Lan, H. Sari, A. Rominger, C. la Fougère, F. P. Schmidt, (2024). *European Journal of Nuclear Medicine and Molecular Imaging*, (2024) 51:3346–3359 <https://doi.org/10.1007/s00259-024-06745-3>

### Biograph Vision

#### Increased lesion detectability in patients with locally advanced breast cancer—a pilot study using dynamic whole-body <sup>18</sup>F-FDG PET/CT

Mette Abildgaard Pedersen, André H. Dias, Karin Hjorthaug, Lars C. Gormsen, Joan Fledelius, Anna Lyhne Johnsson, Signe Borgquist, Trine Tramm, Ole Lajord Munk, Mikkel Holm Vendelbo, (2024). *European Journal of Nuclear Medicine and Molecular Imaging Research* <https://doi.org/10.1186/s13550-024-01096-4>

### Biograph Vision

#### Dynamic whole-body <sup>18</sup>F-FES PET/CT increases lesion visibility in patients with metastatic breast cancer

Mette A. Pedersen, Ole L. Munk, André H. Dias, Johanne H. Stefensen, Anders L. Møller, Anna Lyhne Johnsson, Kim Vang Hansen, Dirk Bender, Steen Jakobsen, Morten Busk, Lars C. Gormsen, Trine Tramm, Signe Borgquist, Mikkel H. Vendelbo, (2024). *European Journal of Nuclear Medicine and Molecular Imaging Research* <https://doi.org/10.1186/s13550-024-01080-y>

### Biograph Vision Quadra

#### Validation of image-derived input function using a long axial field of view PET/CT scanner for two different tracers

Xavier Palard-Novello, Denise Visser, Nelleke Tolboom, Charlotte L C Smith, Gerben Zwezerijnen, Elsmarieke van de Giessen, Marijke E den Hollander, Frederik Barkhof, Albert D Windhorst, Bart Nm van Berckel, Ronald Boellaard, Maqsood Yaqub, (2024). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-024-00628-0>

### Biograph Vision Quadra

#### Ultrashort oncologic whole-body <sup>18</sup>F-FDG Patlak imaging using LAFOV PET

Joyce van Sluis, Johannes H van Snick, Andor W J M Glaudemans, Riemer H J A Slart, Walter Noordzij, Adrienne H Brouwers, Rudi A J O Dierckx, Adriaan A Lammertsma, Charalampos Tsoumpas, Ronald Boellaard, (2024). *The Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.124.267784>

### Biograph Vision Quadra

#### Validating image-derived input functions of dynamic <sup>18</sup>F-FDG long axial field-of-view PET/CT studies

Charlotte L C Smith, Gerben J C Zwezerijnen, Marijke E den Hollander, Henricus N J M Greuter, Nienke R Gerards, Josée Zijlstra, C Willemien Menke-van der Houven van Oordt, Idris Bahce, Maqsood Yaqub, Ronald Boellaard, (2025). *Frontiers in Medicine* <https://doi.org/10.3389/fnume.2025.1556848>

### Biograph Vision Quadra

#### Impact of different parametric Patlak imaging approaches and comparison with a 2-tissue compartment pharmacokinetic model with a long axial field-of-view (LAFOV) PET/CT in oncological patients

Leyun Pan, Christos Sachpekidis, Jessica Hassel, Petros Christopoulos, Antonia Dimitrakopoulou-Strauss, (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06879-4>

## 6. Neurology

### Biograph Vision Quadra

#### Brain perfusion estimation by Tikhonov model-free deconvolution in a long axial field of view PET/CT scanner exploring five different PET tracers

Henrik Bo Wiberg Larsson, Ian Law, Thomas L. Andersen, Flemming L. Andersen, Barbara M. Fischer, Mark B. Vestergaard, Tanne S. W. Larsson, Ulrich Lindberg, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-023-06469-w>

### Biograph Vision Quadra

#### Single time point quantitation of cerebral glucose metabolism by FDG-PET without arterial sampling

Paul Cumming, André H. Dias, Lars C. Gormsen, Allan K. Hansen, Ian Alberts, Axel Rominger, Ole L. Munk, Hasan Sari, (2023). *European Journal of Nuclear Medicine and Molecular Imaging Research* <https://rdcu.be/eyTK4>

## 7. Oncology/ImmunoPET

### Biograph Vision Quadra

#### Feasibility of late acquisition <sup>68</sup>Ga Ga-PSMA-11 PET/CT using a long axial field-of-view PET/CT scanner for the diagnosis of recurrent prostate cancer—first clinical experiences

Ian Alberts, George Prenosil, Clemens Mingels, Karl Peter Bohn, Marco Viscione, Hasan Sari, Axel Rominger, Ali Afshar-Oromieh, (2021). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-021-05438-5>

### Biograph Vision Quadra

#### First-time imaging of <sup>89</sup>Zr trastuzumab in breast cancer using a long axial field-of-view PET/CT scanner

Adrienne H. Brouwers, Joyce van Sluis, Johannes H. van Snick, Carolina P. Schröder, Inge O. Baas, Ronald Boellaard, Andor W. J. M. Glaudemans, Ronald J. H. Borra, Adriaan A. Lammertsma, Rudi A. J. O. Dierckx, Charalampos Tsoumpas, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05777-x>

### Biograph Vision Quadra

#### Combined <sup>68</sup>Ga Ga-PSMA-11 and low-dose 2-<sup>18</sup>F-FDG PET/CT using a long-axial field of view scanner for patients referred for <sup>177</sup>Lu-PSMA-radioligand therapy

Ian Alberts, Robin Schepers, Konstantinos Zeimpekis, Hasan Sari, Axel Rominger, Ali Afshar-Oromieh, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05961-z>

### Biograph Vision Quadra

#### A case of clinical uncertainty solved: giant cell arteritis with polymyalgia rheumatica swiftly diagnosed with long axial field of view PET

Pieter H Nienhuis, Joyce van Sluis, Johannes H van Snick, Andor W J M Glaudemans, Sofie Meijering, Elisabeth Brouwer, Riemer H J A Slart, (2022). *Diagnostics* <https://doi.org/10.3390/diagnostics12112694>

### Biograph Vision Quadra

#### Extending the clinical capabilities of short and long-lived positron-emitting radionuclides through high sensitivity PET/CT

Joyce van Sluis, Ronald Borra, Charalampos Tsoumpas, Johannes H. van Snick, Mostafa Roya, Dik ten Hove, Adrienne H. Brouwers, Adriaan A. Lammertsma, Walter Noordzij, Rudi A.J.O. Dierckx, Riemer H.J.A. Slart, Andor W.J.M. Glaudemans, (2022). *Cancer Imaging* <https://doi.org/10.1186/s40644-022-00507-w>

### Biograph Vision Quadra

#### Staging of breast cancer in pregnancy with ultralow dose <sup>18</sup>F-FDG-PET/CT<sup>1</sup>

Korsholm, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-06076-1>

### Biograph Vision Quadra

#### Long axial field-of-view PET for ultra-low-dose imaging of Non-Hodgkin lymphoma during pregnancy

Joyce van Sluis, Mar Bellido, Andor W. J. M. Glaudemans, Riemer H. J. A. Slart, (2022). *Diagnostics*. 2022;13(1):28 <https://doi.org/10.3390/diagnostics13010028>

### Biograph Vision Quadra

#### Application of the long axial field-of-view PET/CT with low-dose <sup>18</sup>F-FDG in melanoma

Christos Sachpekidis, Leyun Pan, Annette Kopp-Schneider, Vivienn Weru, Jessica C. Hassel, Antonia Dimitrakopoulou-Strauss, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-06070-7>

### Biograph Vision Quadra

#### Impact of reduced image noise on Deauville scores in patients with lymphoma scanned on a long-axial field-of-view PET/CT-scanner

Korsholm K, Overbeck N, Dias AH, Loft A, Andersen FL, Fischer BM, (2023). *Diagnostics* <https://pubmed.ncbi.nlm.nih.gov/36900090/>

### Biograph Vision Quadra

#### Investigating the influence of long-axial versus short-axial field of view PET/CT on stage migration in lymphoma and non-small cell lung cancer

Ian Alberts, Sigrid Seibel, Song Xue, Marco Viscione, Clemens Mingels, Hasan Sari, Ali Afshar-Oromieh, Andreas Limacher, Axel Rominger, (2023). *Nuclear Medicine Communications* <https://doi.org/10.1097/mnm.0000000000001745>

### Biograph Vision Quadra

#### Long axial field of view (LAFOV) PET-CT: implementation in static and dynamic oncological studies

Antonia Dimitrakopoulou-Strauss, Leyun Pan, Christos Sachpekidis, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06222-3>

### Biograph Vision Quadra

#### Long axial field-of-view PET/CT could answer unmet needs in gynecological cancers

Elizabeth Katherine Anna Triumbari, Vittoria Rufini, Clemens Mingels Clemens Mingels, Axel Rominger, Abass Alavi, Francesco Fanfani, Ramsey D. Badawi, Lorenzo Nardo, (2023). *Cancers* <https://doi.org/10.3390/cancers15092407>

### Biograph Vision Quadra

#### Long versus short axial field of view immuno-PET/CT: semiquantitative evaluation for <sup>89</sup>Zr-Trastuzumab

Philipp Mohr, Joyce van Sluis, Laura Providência, Johannes H. van Snick, Marjolijn N. Lub-de Hooge, Antoon T. Willemsen, Andor W.J.M. Glaudemans, Ronald Boellaard, Adriaan A. Lammertsma, Adrienne H. Brouwers, Charalampos Tsoumpas, (2023). *Nuclear Medicine* 2023;64(11):1815-1820. <https://doi.org/10.2967/jnumed.123.265621>

### Biograph Vision Quadra

#### Multiple angioliopomas visualized by dynamic and delayed “total-body” <sup>18</sup>F-DCFPyL and <sup>64</sup>Cu-SARbisPSMA PET/CT

Ingbritsen J, Callahan J, Morgan H, Hicks RJ., (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06317-x>

### Biograph Vision Quadra

#### New thresholds in semi-quantitative <sup>18</sup>F-FDG PET/CT are needed to assess large vessel vasculitis with long-axial field-of-view scanners

Luisa Knappe, Carola Bregenzer, Nasir Gözlügöl, Clemens Mingels, Ian Alberts, Axel Rominger, Federico Caobelli, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06423-w>

### Biograph Vision Quadra

#### Quantitative perfusion imaging with total-body PET

Juhani Knuuti, Jouni Tuisku, Henri Kärpijoki, Hidehiro Iida, Teemu Maaniitty, Aino Latva-Rasku, Vesa Oikonen, Sergey V Nesterov, Jarmo Teuho, Maria K Jaakkola, Riku Klén, Heli Louhi, Virva Saunavaara, Pirjo Nuutila, Antti Saraste, Juha Rinne, Lauri Nummenmaa, (2023). *Journal of Nuclear Medicine* <https://doi.org/10.2967/jnumed.122.264870>

### Biograph Vision Quadra

#### The clinical acceptability of short versus long duration acquisitions for head and neck cancer using long-axial field-of-view PET/CT: a retrospective evaluation

Riccardo Mei, Thomas Pyka, Hasan Sari, Stefano Fanti, Ali Afshar-Oromieh, Roland Giger, Federico Caobelli, Axel Rominger, Ian Alberts, (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-023-06516-6>

### Biograph Vision Quadra

#### Expert opinions in nuclear medicine: finding the “holy grail” in infection imaging

Andor W J M Glaudemans, Olivier Gheysens, (2023). *Frontiers in Medicine* <https://doi.org/10.3389/fmed.2023.1149925>

### Biograph Vision Quadra

#### First-in-human evaluation of 6-bromo-7-<sup>11</sup>C-methylpurine, a PET tracer for assessing the function of multidrug resistance-associated proteins in different tissues

Severin Mairinger, Matthias Jackwerth, Zacharias Chalampalakis, Ivo Rausch, Maria Weber, Michael Wöfl-Duchek, Lena Pracher, Lukas Nics, Jens Pahnke, Werner Langsteger, Marcus Hacker, Markus Zeitlinger, Oliver Langer, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06851-2>

### Biograph Vision Quadra

#### Long axial field-of-view (LAFOV) PET/CT in prostate cancer

Christos Sachpekidis, Antonia Dimitrakopoulou-Strauss, (2024). *Seminars in Nuclear Medicine* <https://doi.org/10.1053/j.semnuclmed.2024.05.004>

### Biograph Vision Quadra

#### Long-axial field-of-view PET imaging in patients with lymphoma: challenges and opportunities

Clemens Mingels, Hande Nalbant, Hasan Sari, Felipe Godinez, Fatma Sen, Benjamin Spencer, Naseem S Esteghamat, Joseph M Tuscano, Lorenzo Nardo, (2024). *PET Clinics* <https://doi.org/10.1016/j.cpet.2024.05.005>

### Biograph Vision Quadra

#### Letter to the editor: FDG liver biodistribution

Dale L. Bailey, Geoffrey P. Schembri, Kathy P. Willowson, Paul J. Roach, (2024). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06652-7>

### Biograph Vision Quadra

#### Optimization of Y-90 radioembolization imaging for post-treatment dosimetry on a long axial field-of-view PET/CT scanner

Pia M. Linder, Wenhong Lan, Nils F. Trautwein, Julia Brosch-Lenz, Sebastian von Beschwitz, Jürgen Kupferschläger, Gerald Reischl, Gerd Grözinger, Helmut Dittmann, Christian la Fougère, Fabian P. Schmidt, (2024). *Diagnostics* <https://doi.org/10.3390/diagnostics13223418>

### Biograph Vision Quadra

#### Phantom study for <sup>90</sup>Y liver radioembolization dosimetry with a long axial field-of-view PET/CT

Lorenzo Mercolli, Konstantinos Zeimpekis, George A. Prenosil, Hasan Sari, Hendrik G. Rathke, Axel Rominger, Kunagyu Shi, (2024). *Diagnostics* <https://doi.org/10.1016/j.ejmp.2024.103296>

### Biograph Vision Quadra

#### <sup>90</sup>Y post-radioembolization clinical assessment with whole-body Biograph Vision Quadra PET/CT: image quality, tumor, liver and lung dosimetry

Konstantinos G. Zeimpekis, Lorenzo Mercolli, Maurizio Conti, Hasan Sari, Axel Rominger, Hendrik Rathke, (2024) *European Journal of Nuclear Medicine and Molecular Imaging*. (2024). 51:2100–2113 <https://doi.org/10.1007/s00259-024-06650-9>

### Biograph Vision Quadra

#### Combined whole-body dynamic and static PET/CT with low-dose <sup>18</sup>F-PSMA-1007 in prostate cancer patients

Christos Sachpekidis, Leyun Pan, Martin Groezinger, Dimitrios Stefanos Strauss, Antonia Dimitrakopoulou-Strauss, (2024) *European Journal of Nuclear Medicine and Molecular Imaging*, (2024) 51:2137–2150 <https://doi.org/10.1007/s00259-024-06620-1>

### Biograph Vision Quadra

#### <sup>18</sup>F-FDG PET/CT to diagnose inflammation in critically ill immunocompromised patients

B. van Leer, C. P. van Stee, A. W. J. M. Glaudemans, G. J. Westland, J. Pillay, (2024). *Intensive Care Med* (2025) 51:197–198. <https://doi.org/10.1007/s00134-024-07723-x>

### Biograph Vision Quadra

#### Evaluation of long axial field-of-view (LAFOV) PET/CT for posttreatment dosimetry in Yttrium-90 radioembolization of liver tumors: a comparative study with conventional SPECT imaging

Konstantinos G. Zeimpekis, Hasan Sari, Nasir Gözlügöl, Ngwe Rawlings Achangwa, Kuangyu Shi, Marc Schindewolf, Ali Afshar-Oromieh, Axel Rominger, Robert Seifert, (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-07034-9>

### Biograph Vision Quadra

#### Whole-body parametric mapping of tumour perfusion in metastatic prostate cancer using long axial field-of-view $^{15}\text{O}$ $\text{H}_2\text{O}$ PET

Mads Ryø Jochumsen, Nana L Christensen, Peter Iversen, Lars C Gormsen, Jens Sørensen, Lars P Tolbod (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-06799-3>

### Biograph Vision Quadra

#### First-in-human whole-body PET/CT imaging with the optimized ketone tracer $^{11}\text{C}$ $\beta$ -hydroxybutyrate using a long axial field-of-view scanner

Mette Louise Gram Kjaerulff, Erik Nguyen Nielsen, Lars Christian Gormsen, André Henrique Dias, (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-06787-7>

### Biograph Vision Quadra

#### Artificial intelligence–based, volumetric assessment of the bone marrow metabolic activity in $^{18}\text{F}$ -FDG PET/CT predicts survival in multiple myeloma

Christos Sachpekidis, Olof Enqvist, Johannes Ulén, Annette Kopp-Schneider, Leyun Pan, Elias K. Mai, Marina Hajiyianni, Maximilian Merz, Marc S. Raab, Anna Jauch, Hartmut Goldschmidt, Lars Edenbrandt, Antonia Dimitrakopoulou-Strauss, (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-06668-z>

### Biograph Vision Quadra

#### FDG imaging with long-axial field-of-view PET/CT in patients with high blood glucose—a matched pair analysis

Clemens Mingels, Luis Weissenrieder, Konstantinos Zeimpekis, Hasan Sari, Lorenzo Nardo, Federico Caobelli, Ian Alberts, Axel Rominger, Thomas Pyka, (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-06646-5>

### Biograph Vision Quadra

#### One-day dual-tracer examination in neuroendocrine neoplasms: a real advantage of low activity LAFOV PET imaging

Eduardo Calderón, Lena S. Kiefer, Fabian P. Schmidt, Wenhong Lan, Andreas S. Brendlin, Christian P. Reinert, Stephan Singer, Gerald Reischl, Martina Hinterleitner, Helmut Dittmann, Christian la Fougère, Nils F. Trautwein, (2025) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-025-07073-w>

### Biograph Vision Quadra

#### Clinical benefits of LAFOV PET/CT in growing demand for molecular imaging

Wouter V. Vogel, Milou M. Steemers - de Boer, Sanne M. Jansen, Erik-Jan Rijkhorst, Berlinda J. de Wit - van der Veen, Bernies van der Hiel, Arthur J. A. T. Braat, (2025) *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-025-07159-5>

### Biograph Vision Quadra

#### Diagnostic accuracy in NSCLC lymph node staging with Total-Body and conventional PET/CT

Clemens Mingels, Mohammad H. Madani, Fatma Sen, Hande Nalbant, Jonathan W. Riess, Yasser G. Abdelhafez, Ahmadreza Ghasemiesfe, Axel Rominger, Michele Guindani, Ramsey D. Badawi, Benjamin A. Spencer, Lorenzo Nardo, (2025) *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-025-07177-3>

### Biograph Vision Quadra

#### Effect of probenecid on the whole-body disposition of 6-bromo-7- $^{11}\text{C}$ methylpurine in humans assessed with long axial field-of-view PET/CT

Matthias Jackwerth, Severin Mairinger, Ivo Rausch, Maria Weber, Anselm Jorda, Lukas Nics, Werner Langsteger, Markus Zeitlinger, Marcus Hacker, Oliver Langer, (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-025-07121-5>

### Biograph Vision Quadra

#### The impact of long axial field of view (LAFOV) PET on oncologic imaging

Gary J.R. Cook, Ian L. Alberts, Thomas Wagner, B.Malene Fischer, Muhummad Sohaib Nazirf, David Lilburn, (2025) *European Journal of Radiology* <https://doi.org/10.1016/j.ejrad.2024.111873>

### Biograph Vision Quadra

#### High detection rates for prostate-specific membrane antigen-avid prostate cancer recurrence at low prostate-specific antigen levels on extended axial field-of-view positron emission tomography/computed tomography

Thomas, Sarah; Callahan, Jason; Conway, Paul; Moon, Daniel; Morgan, Hugh; Ingbritsen, Johanna; Munro, Melissa; Ware, Robert E.; Dundee, Phil; Hicks, Rodney J. (2025) *European Urology Open Science* <https://doi.org/10.1016/j.euros.2024.11.008>

### Biograph Vision Quadra

#### Low-activity <sup>18</sup>F-somatostatin receptor (SSTR) imaging using <sup>18</sup>F-SiTATE on a long axial field-of-view PET/CT scanner

Trautwein, Nils F.; Calderón, Eduardo; Linder, Pia M.; Reischl, Gerald; Driessen, Philippe; Lan, Wenhong; Brendlin, Andreas S.; Groß, Thorben; Dittmann, Helmut; Hinterleitner, Martina; Fougère, Christian Ia; Schmidt, Fabian P.; Kiefer, Lena S., (2025) *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://doi.org/10.1186/s40658-025-00720-z>

### Biograph Vision Quadra

#### <sup>18</sup>F-SiTATE uptake in a pancreatic metastasis from a renal cell carcinoma on a long axial field of view PET/CT

Moritz Mattke, Leander Schwaibold, Patrick Krumm, Stephan Singer, Nils F Trautwein, (2025). *Clinical Nuclear Medicine* <https://doi.org/10.1097/rlu.0000000000005844>

### Biograph Vision Quadra

#### Takayasu's arteritis imaged by a LAFOV PET/CT system: better resolution leads to greater diagnostic certainty

Sofie Rytter, André Henrique Dias, Ole Lajord Munk, Lars Christian Gormsen, (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-025-07192-4>

### Biograph Vision Quadra

#### Assessment of fully quantitative and simplified methods for analysis of <sup>68</sup>Ga Ga-FAPI-46 uptake in patients with pancreatobiliary cancer using LAFOV PET/CT

Xavier Palard-Novello, Rutger B Henrar, Daniela E Oprea-Lager, Matthijs C F Cysouw, Patrick Schober, Lioe-Fee de Geus-Oei, Alexander L Vahrmeijer, Harry Hendrikse, Geert Kazemier, Marijke den Hollander, Robert C Schuit, Albert D Windhorst, Ronald Boellaard, Rutger-Jan Swijnenburg, Maqsood Yaqub (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-07037-6>

### Biograph Vision Quadra

#### Total body PET-CT protocols in oncology

Antonia Dimitrakopoulou-Strauss, Leyun Pan, Christos Sachpekidis, (2025). *Seminars in Nuclear Medicine* <https://doi.org/10.1053/j.semnuclmed.2024.05.008>

### Biograph Vision Quadra

#### Long-axial field-of-view PET/CT improves radiomics feature reliability.

Ian L Alberts, Song Xue, Hasan Sari, Lara Cavinato, George Prenosil, Ali Afshar-Oromieh, Clemens Mingels, Kuangyu Shi, Federico Caobelli, Arman Rahmim, Thomas Pyka, Axel Rominger, (2025). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-024-06921-5>

## 8. Pediatric

### Biograph Vision Quadra

#### Long axial field of view enables PET/CT in toddler without sedation

Michala Reichkender, Flemming L. Andersen, Lise Borgwardt, Ulrikka Nygaard, Elisabeth Albrecht-Beste, Kim F. Andersen, Anna Ljunggren, Nynne Abrahamsen, Annika Loft, Liselotte Højgaard, Barbara M. Fischer, (2022). *The Journal of Nuclear Medicine* <https://pubmed.ncbi.nlm.nih.gov/35710737/>

### Biograph Vision Quadra

#### Ultra-low dose infection imaging of a newborn without sedation using long axial field-of-view PET/CT

N. D. van Rijsewijk, B. van Leer, O. V. Ivashchenko, E. H. Schölvinck, F. van den Heuvel, J. H. van Snick, R. H. J. A. Slart, W. Noordzij, A. W. J. M. Glaudemans, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-022-05979-3>

### Biograph Vision Quadra

#### **<sup>18</sup>F mFBG long axial field of view PET-CT without general anaesthesia reveals concise extension of neuroblastoma in a 9-month-old boy**

L. Borgwardt, J. S. Brok, K. F. Andersen, J. Madsen, N. Gillings, M.Ø. Fosbøl, C. L. Denholt, P. S. Wehner, L. H. Enevoldsen, P. Oturai, D. Czyzewska, H. H. Johannesen, L. Højgaard, I. N. Petersen, L. S. Sørensen, C. Schulze, E. S. Saxtoft, F. L. Andersen, B. M. Fischer, (2022). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi.org/10.1007/s00259-023-06160-0>

### Biograph Vision Quadra

#### **Long axial field-of-view PET for ultra-low-dose imaging of non-hodgkin lymphoma during pregnancy**

Joyce van Sluis, Mar Bellido, Andor W. J. M. Glaudemans, Riemer H. J. A. Slart, (2022) *Diagnostics*. 2022;13(1):28 <https://doi.org/10.3390/diagnostics13010028>

### Biograph Vision Quadra

#### **Staging of breast cancer in pregnancy with ultralow dose <sup>18</sup>F-FDG-PET/CT.**

Korsholm K, Aleksyniene R, Albrecht-Beste E, Vadstrup ES, Andersen FL, Fischer BM., (2023). *European Journal of Nuclear Medicine and Molecular Imaging* <https://doi:10.1007/s00259-022-06076-1>

### Biograph Vision Quadra

#### **Fetal dose minimization: ultra-low dose long axial field of view (LAFOV) PET/CT imaging of a pregnant patient**

J. H. van Snick, K. P. Koopmans, A. W. J. M. Glaudemans, G. N. Stormezand, O. V. Ivashchenko, (2024) *European Journal of Nuclear Medicine and Molecular Imaging* <https://link.springer.com/article/10.1007/s00259-024-06861-0>

### Biograph Vision Quadra

#### **Ultra-low foetal radiation exposure in <sup>18</sup>F-FDG PET/CT imaging with a long axial field-of-view PET/CT system**

Charlotte L. C. Smith, Maqsood Yaqub, Ruud H. H. Wellenberg, Jelijn J. Knip, Ronald Boellaard, Gerben J. C. Zwezerijnen, (2024). *European Journal of Nuclear Medicine and Molecular Imaging Physics* <https://rdcu.be/eyTHq>

### Biograph Vision Quadra

#### **Long Axial Field-of-View PET/CT: New Opportunities for Pediatric Imaging.**

André Henrique Dias, Kim Francis Andersen, Marie Øbro Fosbøl, Lars Christian Gormsen, Flemming Littrup Andersen, Ole Lajord Munk, (2024). *Seminars in Nuclear Medicine* <https://doi.org/10.1053/j.semnuclmed.2024.10.007>

### Biograph Vision Quadra

#### **QUALIPAED-A retrospective quality control study evaluating pediatric long axial field-of-view low-dose FDG-PET/CT**

Sabrina Honoré d'Este, Flemming Littrup Andersen, Christina Schulze, Eunice Saxtoft, Barbara Malene Fischer, Kim Francis Andersen, (2024). *Frontiers in Medicine* <https://doi.org/10.3389/fnume.2024.1398773>

Siemens Healthineers Molecular Imaging reserves the right to modify the design and specifications contained herein without prior notice. Please contact your local Sales representative for the most current information. Some options and functionality will not be available immediately on product release. Where certain options and functionality are not available on delivery, these will be delivered as part of subsequent software or hardware releases. Please confirm availability and timing with your representative.

Trademarks and service marks used in this material are property of Siemens Medical Solutions USA or Siemens Healthineers AG. All other company, brand, product, and service names may be trademarks or registered trademarks of their respective holders.

“Siemens Healthineers” is considered a brand name. Its use is not intended to represent the legal entity to which this product is registered. Please contact your local Siemens Healthineers organization for further details.

The statements by Siemens’ Healthineers customers described herein are based on results that were achieved in the customer’s unique setting. Because there is no “typical” hospital and many variables exist (e.g., hospital size, samples mix, case mix, level of IT and/or automation adoption) there can be no guarantee that other customers will achieve the same results. Not everything described in this document is a feature and therefore cannot be guaranteed.

All trademarks are the property of their respective owners.

See full prescribing information for Fludeoxyglucose F 18 Injection, available at [petnetsolutions.com](http://petnetsolutions.com).

Lower dose references based on PET/CT scanner performance as highlighted in publication. Please refer to the approved PET prescribing information for dosing and administration instructions.

Biograph Vision Quadra PET/CT is not available in all countries. Future availability cannot be guaranteed.

---

**Siemens Healthineers Headquarters**

Siemens Healthineers AG  
Siemensstr. 3  
91301 Forchheim  
Germany  
Phone: +49 9191 18-0  
[siemens-healthineers.com](http://siemens-healthineers.com)

**Published by**

Siemens Medical Solutions USA, Inc.  
Molecular Imaging  
2501 N. Barrington Road  
Hoffman Estates, IL 60192  
USA  
Phone: +1 847-304-7700  
[siemens-healthineers.com/mi](http://siemens-healthineers.com/mi)