



# Symani<sup>®</sup> Surgical System Research & Publications

APRIL 2024

## SINGLE CENTER STUDIES

### ➤ 100 Anastomoses: a Two-Year Single-Center Experience with Robotic-Assisted Micro- and Supermicrosurgery for Lymphatic Reconstruction

**Authors:** von Reibnitz, D., Weinzierl, A., Barbon, C., Gutschow, C. A., Giovanoli, P., Grünherz, L., and Lindenblatt, N.

*Journal of Robotic Surgery* – Published Apr 2024

### ➤ Benefits of Robotic-Assisted Lymphatic Microsurgery in Deep Anatomical Planes

**Authors:** Weinzierl, A., Barbon, C., Gousopoulos, E., von Reibnitz, D., Giovanoli, P., Grünherz, L., and Lindenblatt, N.

*JPRAS Open* – Published July 2023

### ➤ Exploring the Learning Curve of a New Robotic Microsurgical System for Microsurgery

**Authors:** Barbon C., Grünherz L., Uyulmaz S., Giovanoli P., and Lindenblatt N.

*JPRAS Open* – Published Dec 2022

### ➤ Early Experience Using a New Robotic Microsurgical System for Lymphatic Surgery

**Authors:** Lindenblatt N., Grünherz L., Wang A., Gousopoulos E., Barbon C., Uyulmaz S., and Gioanoli P.

*Plastic and Reconstructive Surgery—Global Open* – Published Jan 2022

## PRECLINICAL STUDIES

### ➤ **Combined Application of a Novel Robotic System and Exoscope for Microsurgical Anastomoses: Preclinical Performance**

**Authors:** Wessel, K., Wendenburg, I., Shaghayegh, G., and Kückelhaus M. et. al.  
*Journal of Reconstructive Microsurgery – Open* – Published Nov 2023

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### ➤ **Microsurgical Robotic System Enables the Performance of Microvascular Anastomoses: A Randomized In Vivo Preclinical Trial**

**Authors:** Malzone, G., Menichini, G., Innocenti, M., and Ballestín, A.  
*Scientific Reports – A Journal of the Nature family* – Published Aug 2023

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### ➤ **New Robotic System with Wristed Microinstruments Allows Precise Reconstructive Microsurgery: Preclinical Study**

**Authors:** Ballestín A., Malzone G., Menichini G., Lucattelli E., and Innocenti M.  
*Surgical Oncology – Official Journal of the Society of Surgical Oncology* – Published June 2022

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## CASE REPORTS

### ➤ **First-in-human Use of a Microsurgical Robotic System for Central Lymphatic Reconstruction**

**Authors:** Grünherz L., Weinzierl A., Puiippe G.D., et al.  
*Plastic & Reconstructive Surgery–Global Open* – Published Dec 2023

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### ➤ **Nerve Transfers Using a Dedicated Microsurgical Robotic System**

**Authors:** Schäfer, B., Bahm, J., and Beier, J. P.  
*Plastic and Reconstructive Surgery – Global Open* – Published Aug 2023

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### ➤ **First-in-Human Free-Flap Tissue Reconstruction Using a Dedicated Microsurgical Robotic Platform**

**Authors:** Innocenti M., Malzone G., and Menichini G.  
*Plastic and Reconstructive Surgery* – Published May 2022

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## EVOLVING USE – FEASIBILITY STUDIES

➤ **A technical feasibility study on adaptation of a microsurgical robotic system to an intraoperative complication management in dental implantology: perforated Schneiderian membrane repair using Symani® Surgical System**

**Authors:** Wieker H., Hinrichs C., Retzlaff M., et al.  
*Journal of Robotic Surgery* – Published Oct 2023

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➤ **A Novel Microsurgical Robot: Preliminary Feasibility Test in Ophthalmic Field**

**Authors:** Savastano A. and Rizzo S.  
*Translational Vision Science & Technology (TVST) ARVO Journal* –  
Published Aug 2022

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## ROBOTICS IN MICROSURGERY EDITORIALS

### ➤ Central Lymphatic Surgery

**Authors:** Grünherz L. and Lindenblatt N.  
*Plastic and Aesthetic Research* – Published May 2023

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### ➤ Robotic-Assisted Microsurgery for Lymphedema Treatment

**Authors:** Gousopoulos E., Grünherz L., Giovanoli P., and Lindenblatt N.  
*Plastic and Aesthetic Research* – Published Feb 2023

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### ➤ Robotic-Assisted Microsurgery and Its Future in Plastic Surgery

**Authors:** Aitzetmuller M., Klietz M.L., Dermietzel A., Hirsch T., and Kückelhaus M.  
*Journal of Clinical Medicine* – Published June 2022

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### ➤ Back to the Future: Robotic Microsurgery

**Authors:** Innocenti M.  
*Archives of Plastic Surgery* – Published May 2022

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