



SKILL  
e-lab



SKILL  
NeuroElite fellows program



SKILL  
Centers of excellence



SKILL  
Training centers

SKILL™

Stroke **K**nowledge **I**nitiatives  
for **L**earning and **L**eadership



# SKILL program overview

At Stryker, we're committed to partnering with you to advance patient care with the right medical education at the right time in your career. With innovative, tailored ischemic and hemorrhagic stroke education programs, we support your needs to address the challenges of patient management—all with the shared, ultimate goal of improving lives.



SKILL  
e-lab

Engage in Stryker's interactive, experiential e-learning platform. SKILL e-lab shares knowledge on anatomy, pathology, patient management, procedures, techniques and more—directly to your desktop or tablet.



SKILL  
NeuroElite  
fellows program

Gain experience and confidence while networking with your peers. Our interactive and personalized curriculum provides comprehensive resources and training led by respected experts to support you throughout your fellowship.



SKILL  
Centers of excellence

Stay ahead of patient management trends while building a foundation of basic sciences, professional standards and clinical training. Our centers of excellence around the world offer on-site, customized education from leading experts and institutions.



SKILL  
Training centers

Take your experience to the next level at Stryker's fully equipped training centers. Physicians and medical staff enjoy targeted, personalized training in comprehensive, state-of-the-art facilities, equipped with C-arm, simulators, flow models and more.

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## SKILL e-lab

Whether you're a nurse, technician, stroke coordinator, fellow, experienced physician or other key caregiver along the patient pathway, Stryker's SKILL e-lab provides an interactive, experiential e-learning platform.

This in-depth, online resource shares knowledge on anatomy, pathology, patient management, procedures, techniques and more—directly to your desktop or tablet.



**Contact us to learn more**





## SKILL NeuroElite fellows program

Gain experience and confidence while networking with your peers through this comprehensive program, delivering outstanding educational opportunities to neurointerventional fellows in their final year of residency. The interactive and personalized curriculum provides a dynamic platform for the exchange of knowledge, with resources and training sessions led by respected experts. All designed to support you throughout your fellowship. Our educational programs include:

- Hands-on product trainings
- Technology courses
- Simulation trainings
- National symposiums



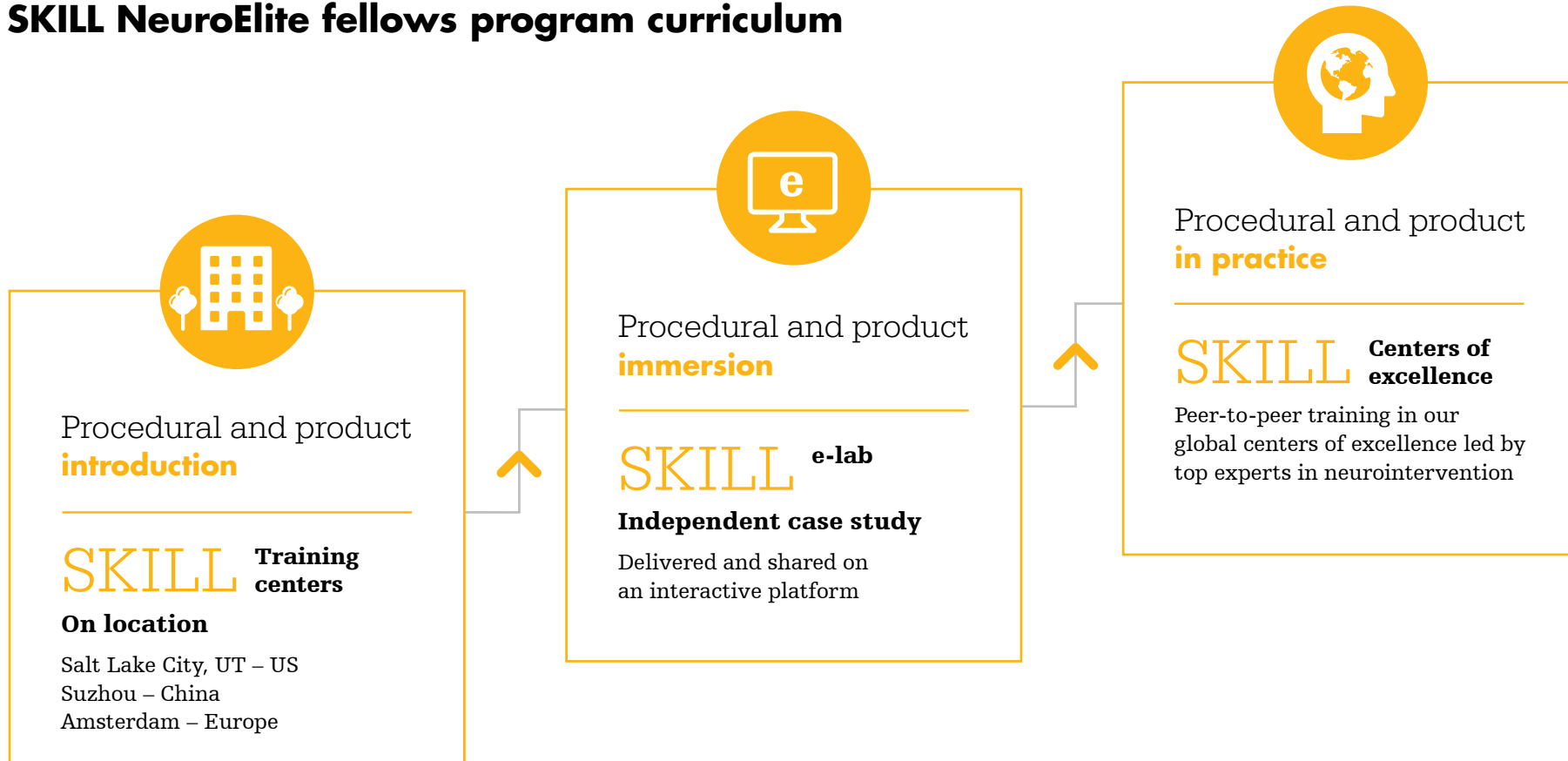
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# SKILL NeuroElite fellows program

## SKILL NeuroElite fellows program curriculum



Contact us to learn more







## SKILL Centers of excellence

Stay ahead of evolving patient management trends while building a strong foundation of basic sciences, professional standards and clinical training. With on-site education from leading experts and institutions, our centers of excellence around the globe offer a full training pathway. Each course is customized based on learning needs, with progressive levels of training to advance to neurointerventional education. Participants increase their expertise through a full range of learning opportunities, including:

- Live cases
- Case discussions
- Lectures
- Practice with flow models, simulators and animal labs



[Click here to see course list](#)





# SKILL Centers of excellence

## Beginner (at least 10 cases)

## Intermediate (between 20 & 50 cases)

## Advanced (at least 50 cases)

### Acute ischemic stroke

- Barcelona, Spain
- Istanbul, Turkey
- Montpellier, France

- Geneva, Switzerland
- Rotterdam, The Netherlands

- Aachen, Germany
- Montpellier, France (full immersion)
- Hong Kong
- Singapore
- Taipei, Taiwan

### Hemorrhagic

- Le Kremlin-Bicêtre, France
- Oxford, UK
- Bangkok, Thailand

- Budapest, Hungary
- Lubeck, Germany
- Bangkok, Thailand

- Nijmegen, The Netherlands
- Montpellier, France (full immersion)
- Paris, France
- Le Kremlin-Bicêtre, France
- Gurgaon, India

### Intracranial atherosclerosis (ICAD)

- Taipei, Taiwan



[Click here to see course list](#)





# SKILL Centers of excellence

## Acute ischemic stroke

|              | Type   | Level        | Format  | Location                   | Language(s)                              |
|--------------|--|--------------|---|----------------------------|--|
| EMEA         | AIS teaching course                                | Beginner     | Lectures, animal lab, case discussions                | Barcelona, Spain           | English (Spanish available upon request) |
|              | AIS patient management, tips and techniques        | Beginner     | Lectures, case discussions, live cases                | Istanbul, Turkey           | English, Turkish                         |
|              | AIS patient management: Multidisciplinary approach | Beginner     | Lectures, flow models, case reviews, case discussions | Montpellier, France        | English, French                          |
|              | AIS patient selection and imaging                  | Intermediate | Lectures, flow models, case reviews, CT analysis      | Rotterdam, The Netherlands | English, Dutch                           |
|              | Adapting technique based on clot composition       | Intermediate | Lectures, flow models, case discussions               | Geneva, Switzerland        | English, French, Italian                 |
|              | Combined technique                                 | Advanced     | Lectures, animal labs, flow models                    | Aachen, Germany            | English (Russian available upon request) |
|              | Full immersion week                                | Advanced     | Case attendance, lectures, case discussions           | Montpellier, France        | English, French                          |
| Asia Pacific | Advanced acute ischemic stroke training            | Advanced     | Lectures, case discussions, flow models, animal lab   | Hong Kong, China           | English, Mandarin                        |
|              | Acute ischemic stroke training                     | Advanced     | Lectures, case discussions, flow models, animal lab   | Singapore                  | English                                  |
|              | Combined technique                                 | Advanced     | Lectures, flow models, case discussions               | Taipei, Taiwan             | English, Mandarin                        |



Click to see full course details



Contact us to learn more about course enrollment







# SKILL Centers of excellence

## Hemorrhagic stroke

|              | Type  | Level        | Format  | Location                   | Language(s)            |
|--------------|---|--------------|---|----------------------------|------------------------|
| EMEA         | Oxford aneurysm teaching school   | Beginner     | Lectures, tutorials by expert KOLs, flow models, simulation   | Oxford, United Kingdom     | English                |
|              | Flow diverter technique and patient management                          | Beginner     | Live cases, lectures, prerecorded cases platform, case sharing  | Le Kremlin-Bicêtre, France | English, French        |
|              | Stent-assisted coiling  | Intermediate | Lectures, live cases, flow model  | Lubeck, Germany            | English, German        |
|              | Complex aneurysm treatment: Balloon, stent and flow diverter techniques | Intermediate | Lectures, live cases, flow models   | Budapest, Hungary          | English                |
|              | Flow diversion technique  | Advanced     | Lectures, live cases, animal labs, flow models  | Nijmegen, The Netherlands  | English, German, Dutch |
|              | Stroke patient management and treatment (hemorrhagic and ischemic)      | Advanced     | Pre- and post-deployment patient management, anesthetist lectures on D.A.P.T., lectures, live cases, interactive cases debriefing | Paris, France              | English, French        |
|              | Full immersion week   | Advanced     | Case attendance, lectures, case discussions   | Montpellier, France        | English, French        |
|              | Immersion days (2)  | Advanced     | Live cases, lectures, prerecorded cases platform, case sharing  | Le Kremlin-Bicêtre, France | English, French        |
| Asia Pacific | Aneurysm access and coiling   | Beginner     | Recorded aneurysm coiling cases, hands-on, case discussions   | Bangkok, Thailand          | English                |
|              | Endovascular aneurysm treatment with balloon and stent-assisted coiling | Intermediate | Lectures, case discussions, flow model, animal lab  | Bangkok, Thailand          | English                |
|              | Flow diversion technique  | Advanced     | Lectures, live cases, case discussions  | Gurgaon, India             | English                |



Click to see full course details



Contact us to learn more about course enrollment





# SKILL **Centers of excellence**

## Intracranial atherosclerosis (ICAD)

|              | Type                    | Level    | Format               | Location       | Language(s)       |
|--------------|-------------------------|----------|----------------------|----------------|-------------------|
| Asia Pacific | ICAD patient management | Advanced | Lectures, live cases | Taipei, Taiwan | English, Mandarin |



Click to see full course details



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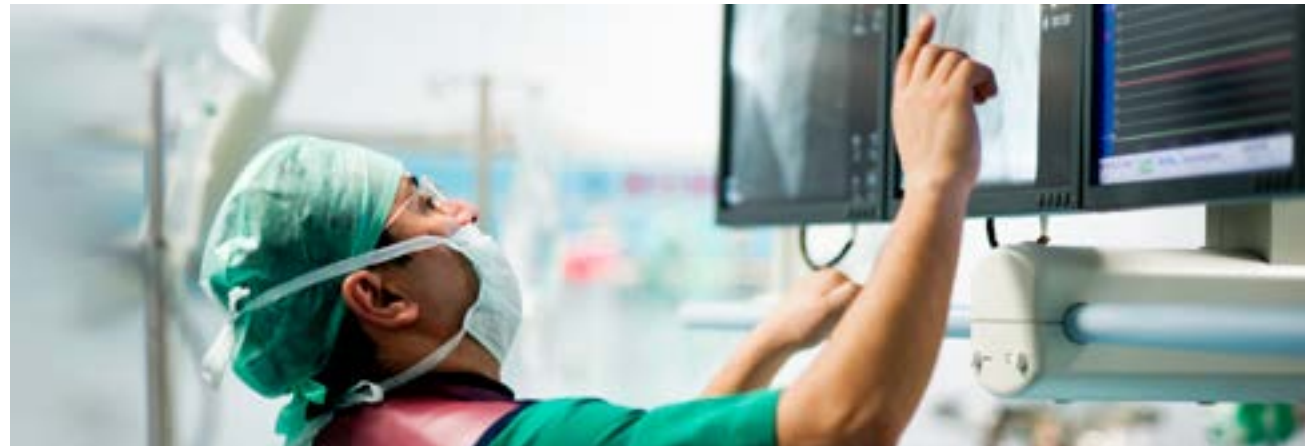




# ALS teaching course

Barcelona, Spain

Level: Beginner



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Dr. Juan Macho</b><br>Hospital Clinic, Barcelona, Spain<br>Dr. Juan Macho and team have set up a full stroke network in Catalunya and are treating more than 200 patients every year. His expertise is well-known worldwide  |
| <b>Objective</b>           | <b>Understand the use of stentriever technique to treat acute ischemic stroke patients through the set-up of a stroke unit with an interdisciplinary approach</b>   |
| <b>Key learning points</b> | With this course physicians will learn about patient selection and set-up of a stroke unit including clinical data, anesthesia protocols and the procedure. The practical part of this course will make participants familiar with the latest techniques to be used in these cases. |
| <b>Experience</b>          | Physicians need to have performed at least 10 cases   |
| <b>Location</b>            | VHIR Hospital Vall d'Hebron, CDIC Hospital Clinic, Barcelona, Spain   |
| <b>Format</b>              | Lectures on patient selection, setting up a stroke network, actual clinical data, hands-on practical participation in the animal lab  |
| <b>Language</b>            | English, Spanish (upon request)   |
| <b>Curriculum level</b>    | Beginner  |





# ALS teaching course

Barcelona, Spain

Level: Beginner

## Course agenda

### Day 1

17:00 - 17:30

Pre-hospital organization, triage tools and referral pathways

17:30 - 18:00

Hospital organization, strategies for reducing treatment time delay

18:00 - 18:30

New neuro imaging selection algorithms

18:30 - 18:45

Coffee break

18:45 - 19:15

Quality monitoring systems, the importance of a database

19:15 - 19:45

Clinical trials, suggestions of scientific collaborations and joint publications





# ALS teaching course

Barcelona, Spain

Level: Beginner

## Course agenda

### Day 2

08:00 - 08:30

Medical management of the patient during the procedure: guidelines sedation, blood pressure control, collateral circulation and neurological monitoring.

08:30 - 09:00

Thrombectomy in acute stroke: practical aspects, strategies, access approaches and materials. Distal vs. proximal aspiration/stentriever technique/ device selection/general anesthesia vs. sedation.

09:00 - 09:30

Intra-/extracranial stenosis stenting, acute & sub-acute phase management

09:30 - 10:00

Special conditions: chronic occlusion/dissection/distal occlusion

10:00 - 10:30

Coffee break

10:30 - 12:30

Animal lab session

12:30 - 14:30

Flow model session

Wrap up

Case reviews and end of course







# ACS patient management, tips and techniques

stryker

Istanbul, Turkey

Acute ischemic stroke

Level: Beginner



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Yakub Krespi</b><br>Prof. Yakub Krespi and team have set up a full stroke network consisting of three stroke centers in Istanbul and treat around 300 patients every year  |
| <b>Objective</b>           | <b>To understand the use of the stent retriever technique to treat acute ischemic stroke patients, through the set-up of a multidisciplinary stroke unit</b>  |
| <b>Key learning points</b> | Physicians will learn about patient selection and the set-up of a stroke unit including clinical data, anesthesia protocols and procedures. The practical part of this course will make participants familiar with the latest techniques. |
| <b>Experience</b>          | Physicians need to have performed at least 10 cases   |
| <b>Location</b>            | Istanbul Aydın University VM Medicalpark Hospital, Istanbul, Turkey   |
| <b>Format</b>              | <ul style="list-style-type: none"><li>• Lectures on patient selection</li><li>• Setting up a stroke network</li><li>• Clinical data</li><li>• Hands-on flow model practice in angio suite</li></ul>                                       |
| <b>Language</b>            | English   |
| <b>Curriculum level</b>    | Beginner  |





# ALS patient management, tips and techniques

Istanbul, Turkey

Level: Beginner

## Course agenda

### Day 1

14:00

Course presentation, introduction of the stroke team

14:15 - 14:30

Past history and lessons learned (PROACT, IMS III, MRRESCUE, SYNTHESIS)

14:30 - 15:00

Definitions: blooming artifact, vessel, hyperintensity, collaterals mismatch (clinical, radiological), TICIs  
Familiarization with tools to understand, describe and select cases

15:00 - 16:00

Studies and patient selection: 0-6 hours, 6-24 hours  
Characteristics of studies and guideline recommendations leading to wide implementation of thrombectomy

16:00

Break

16:30 - 17:00

Stentriever techniques: intervention step-by-step  
Familiarization with the characteristics of stentriever thrombectomy techniques

17:00 - 18:30

Case tutorials: MCA, M1s, MCA functional M1s, ICA tips, tandems

18:30 - 19:00

Coffee break

19:00 - 19:30

Anesthesia and perioperative management principles





# ALS patient management, tips and techniques

Istanbul, Turkey

Level: Beginner

## Course agenda

### Day 2

08:30 - 09:30

Case tutorials: M2-M3; VB system; PCA P1-P2s; Dissections

09:30 - 12:00

Hands-on flow model

- Preparation tips & tricks
- Access
- Stentriever technique
- Aspiration technique

12:00 - 12:30

Lunch

12:30 - 13:30

Stroke unit, stroke code and workflow  
Good practices and goals (interactive discussion of home situation)

13:30 - 15:00

Participant cases

15:00 - 15:30

Review

15:30

Adjourn





# AIS patient management: Multidisciplinary approach



Montpellier, France

Level: Beginner



|                            |  |
|----------------------------|--|
| <b>Course director</b>     | <b>Prof. Vincent Costalat</b><br>As head of the department and with a team of 6 colleagues, Prof. Costalat takes care of 350-400 AIS patients every year   |
| <b>Objective</b>           | <b>To become familiar with all aspects of the endovascular treatment of AIS patients (including the medical, technical and logistical aspects). This course is particularly aimed at interventional neuroradiologists, neurologists and anesthesiologists.</b> |
| <b>Key learning points</b> | Physicians who are just starting to treat AIS patients will have a better understanding of stent retriever technology and of the stroke unit interdisciplinary approach  |
| <b>Experience</b>          | Physicians need to have performed at least 10 cases  |
| <b>Location</b>            | Hôpital Gui De Chauliac, 80 Avenue Augustin Fliche, 34095 Montpellier, France  |
| <b>Format</b>              | <ul style="list-style-type: none"> <li>• Lectures (multidisciplinary treatment approach)</li> <li>• Flow model product training</li> <li>• Case reviews</li> <li>• Case discussions</li> </ul>   |
| <b>Language</b>            | English, French  |
| <b>Curriculum level</b>    | Beginner   |





# ALS patient management: Multidisciplinary approach

Montpellier, France

Level: Beginner

## Course agenda

### Day 1

08:30

Departure to CHU Montpellier

09:00 - 09:15

Arrival and coffee break

09:15 - 09:30

Welcome and introduction of Montpellier team and attendees

09:30 - 10:15

#### **Imaging considerations in acute ischemic stroke**

- CT vs MRI
- Tips & tricks anatomy
- Post thrombectomy imaging

10:15 - 11:15

#### **Patients anesthetics: treatment parameters for consideration**

- Anesthesia protocol (general, conscious sedation, local)
- Heparin (IV and IA bolus)
- Need for urinary catheter
- Procedure
- Tips & tricks
- BP monitoring before and after recanalization
- IV fibrinolysis management
- Glycaemia
- Table and patient set-up

11:15 - 11:30

Coffee break





# AIS patient management: Multidisciplinary approach

Montpellier, France

Level: Beginner

## Course agenda

### Day 1 (continued)

11:30 - 12:30

#### Acute ischemic stroke treatment: evolution and status

- History of AIS treatment
- Role of mechanical therapy in AIS
- Clinical literature review
- Key studies/registries in AIS
- Key clinical literature with Trevo XP ProVue Retriever in AIS
- Retrospective study

#### Montpellier experience: database overview

#### What have we learned in 3 years and 200 cases of stent retrievers?

- Complication rates
- Success rates
- Prognostic factors
- Overview
- Technology
- Sizing
- Technique
- Deployment
- Initial flow restoration
- Incubation time
- Balloon guide catheter use

13:00 - 14:00

Lunch at the hospital





# ALS patient management: Multidisciplinary approach

Montpellier, France

Level: Beginner

## Course agenda

### Day 1 (continued)

14:30 - 17:30

#### Practical session (rotating groups)

##### Group 1: flow model, thrombectomy procedure

- As per the IFU
- Deployment time
- Aspiration
- Tips & tricks
- Solo operator – what are the most important considerations for patient outcomes?

##### Group 2: flow model, simulator overview of the setup & hands-on

- Adjunctive product recommendations and preparation
- Preparation of Flowgate<sup>2</sup> Balloon Guide Catheter
- Preparation of Trevo XP ProVue Retriever
- Procedural imaging considerations

##### Group 3: case review and discussion

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17:45

Transfer back to hotel

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19:45

Meeting in lobby for dinner departure



# ALS patient management: Multidisciplinary approach

Montpellier, France

Level: Beginner

## Course agenda

### Day 2

08:00

Departure to CHU Montpellier

18:30 - 10:30

#### **Patient selection, the Montpellier algorithm**

- Age
- NIHSS
- Timing

#### **Treatment protocol**

- 0-3/4-5 hrs IV tPA
- 4.5-8 hrs
- Bridging protocol/none--pros and cons, contraindications
- Drips & ship protocols

#### **Workflow: tour of department and workflow discussion**

- Time management
- Referral network

#### **Building an acute ischemic stroke team**

- Requirements
- What is the role of each team member, how to engage and educate them?
- Neurology, radiology, emergency, ambulance, anesthetics, UCU/Wards

10:30 - 11:00

Coffee break

11:00 - 11:30

#### **Clinical case review: including managing complications (6-8 cases)**

- Tandem occlusions
- Long occlusions
- Bifurcation occlusions
- Dissections
- Stenotic lesions





# ALS patient management: Multidisciplinary approach

Montpellier, France

Level: Beginner

## Course agenda

### Day 2 (continued)

11:30 - 13:00

#### Multi-disciplinary staff meeting

Live case review of thrombectomy procedure & indication with neurologist a neuro-radiologist from the Montpellier stroke team (6-8 cases)

Summary, diploma, questions and adjourn

13:00 - 14:00

Lunch followed by airport transfer

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# ALS patient selection and imaging

Rotterdam, The Netherlands

Level: Intermediate



|                            |  |
|----------------------------|--|
| <b>Course directors</b>    | <b>Dr. Ad van Es</b> and <b>Dr. Geert Lycklama</b><br>Both Dr. van Es and Dr. Lycklama were part of the MR CLEAN Trial and have extensive theoretical and practical experience in the field of acute ischemic stroke treatment |
| <b>Objective</b>           | <b>To gain practical knowledge on patient selection and the endovascular treatment of acute ischemic stroke</b>  |
| <b>Key learning points</b> | The directors will use lectures, imaging and animal lab training to develop both patient selection and hands-on techniques for the endovascular treatment of acute ischemic stroke   |
| <b>Experience</b>          | Physicians need to have performed between 20-50 cases  |
| <b>Location</b>            | Erasmus Medisch Centrum Rotterdam<br>Gravendijkwal 230<br>3015 CE Rotterdam, The Netherlands   |
| <b>Format</b>              | <ul style="list-style-type: none"><li>• Lectures</li><li>• Animal lab hands-on training</li><li>• Interactive imaging training</li></ul>   |
| <b>Language</b>            | English, Dutch   |
| <b>Curriculum level</b>    | Intermediate   |







# ALS patient selection and imaging

Rotterdam, The Netherlands

Level: Intermediate

## Course agenda

### Day 1

|               |  |
|---------------|--|
| 09:00 - 09:30 | Welcome and introduction   |
| 09:30 - 10:00 | Principles of arterial thrombosis with focus on histology from the MR CLEAN Trial        |
| 10:00 - 11:00 | Imaging in acute ischemic stroke   |
| 11:00 - 11:15 | Break  |
| 11:15 - 12:15 | Overview of clinical stroke trials   |
| 12:15 - 13:00 | Lunch  |
| 13:00 - 16:00 | Hands-on product training in animal lab and with flow models and interactive CT analysis |
| 16:00 - 17:00 | Discussion and wrap-up of day 1  |
| 17:00         | Dinner   |





# ALS patient selection and imaging

Rotterdam, The Netherlands

Level: Intermediate

## Course agenda

### Day 2

|               |  |
|---------------|--|
| 09:00 - 09:30 | Product overview   |
| 09:30 - 10:30 | Advanced/complex thrombectomy cases                        |
| 10:30 - 10:45 | Break  |
| 10:45 - 12:00 | Advanced/complex thrombectomy cases                        |
| 12:00 - 13:00 | Lunch  |
| 13:00 - 14:00 | Medical management and neurological monitoring (mRS/NIHSS) |
| 14:00 - 15:30 | Interactive faculty and participant case review            |
| 15:30 - 16:00 | End of course  |

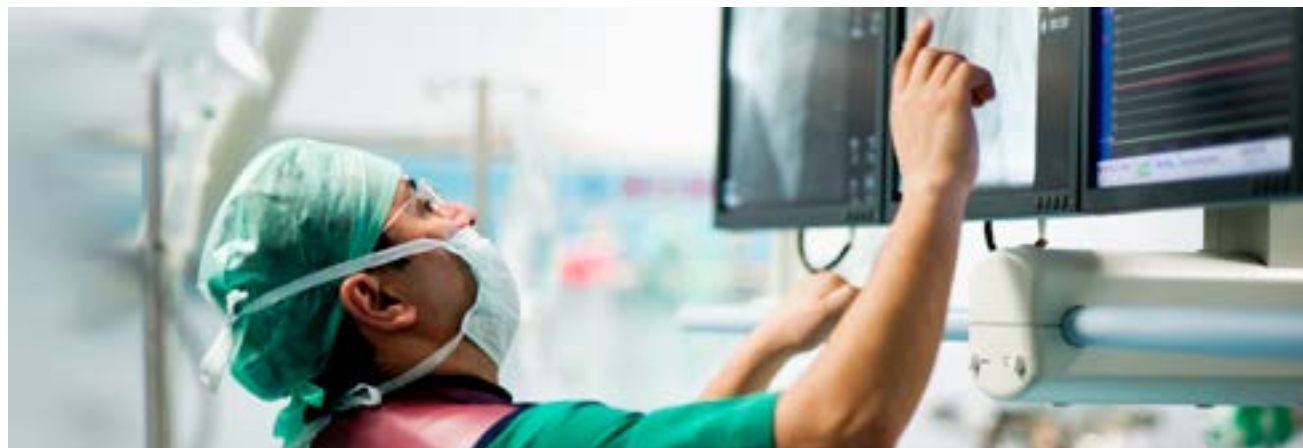




# Adapting technique based on clot composition

Geneva, Switzerland

Level: Intermediate



|                            |   |
|----------------------------|---|
| <b>Course directors</b>    | <b>Dr. Paolo Machì</b><br>Dr. Paolo Machì has extensive experience in interventional neurology. Before becoming the director of the Neuroradiology Department in Genève hospital, he worked in Milan (Italy), France (Montpellier) and Bruxelles (Belgium) developing wide knowledge in stroke treatment with a focus on mechanical thrombectomy. |
| <b>Objective</b>           | <b>Understanding the use and the interaction of different devices with clots by analysing clot composition</b>  |
| <b>Key learning points</b> | By attending this course HCPs will learn how to properly select different devices for AIS patients treatment and will become familiar with new technology devices   |
| <b>Experience</b>          | Physicians need to have experience as first operator in 20 to 50 mechanical thrombectomy cases  |
| <b>Location</b>            | Hôpitaux universitaires de Genève, Rue Gabrielle-Perret-Gentil 4, 1205 Genève (Switzerland)   |
| <b>Format</b>              | Lectures on patient management, patient imaging and device selection. Flow model hands-on sessions with different mechanical thrombectomy devices tested with different clot types. Difficult cases discussion.   |
| <b>Language</b>            | English, Dutch  |
| <b>Curriculum level</b>    | Intermediate  |





# Adapting technique based on clot composition

Geneva, Switzerland

Level: Intermediate

## Course agenda

### Day 1

|               |   |
|---------------|---|
| 09:00 - 09:10 | Welcome to participants and presentations, introduction to the course   |
| 09:10 - 09:30 | Geneva AIS management algorithm, how did we improve it?   |
| 09:30 - 10:00 | Imaging patient selection: MRI or CT scan?  |
| 10:00 - 10:30 | Mechanical treatment: conscious sedation or general anesthesia?   |
| 10:30 - 11:00 | Coffee break  |
| 11:00 - 11:30 | Which device to choose? A Biomechanical approach of understanding stent retrievers' properties and effectiveness in experimental conditions   |
| 11:30 - 12:00 | Mechanical treatment: aspirating vs. stent retriever, when to use what?   |
| 12:00 - 13:00 | Lunch   |
| 13:00 - 14:30 | <b>In vitro WS session (stent retrievers)</b> <ul style="list-style-type: none"><li>• How do stent retrievers interact with different types of clot?</li><li>• Why do stent retrievers fail in engaging stiff or large clots?</li><li>• Thrombo-embolic complication: how does it happen?</li></ul> |
| 14:30 - 16:00 | <b>In vitro WS session (aspirating systems)</b> <ul style="list-style-type: none"><li>• Why should I give a shape to the distal access aspiration catheter?</li><li>• Pump or manual aspiration?</li><li>• Are all distal access catheters effective in the same way?</li></ul>                     |
| 16:00 - 16:30 | Coffee break  |
| 16:30 - 17:30 | <b>Clinical cases discuss</b> <ul style="list-style-type: none"><li>• Real challenging and difficult cases...did we make the right decision?</li></ul>  |





# Adapting technique based on clot composition

Geneva, Switzerland

Level: Intermediate

## Course agenda

### Day 2

- Round table and discussion on participants' hospital AIS management setting  
How can delays be reduced?
- Multidisciplinary discussion on the cases of the week and interaction with participants
- Certificate and end of course

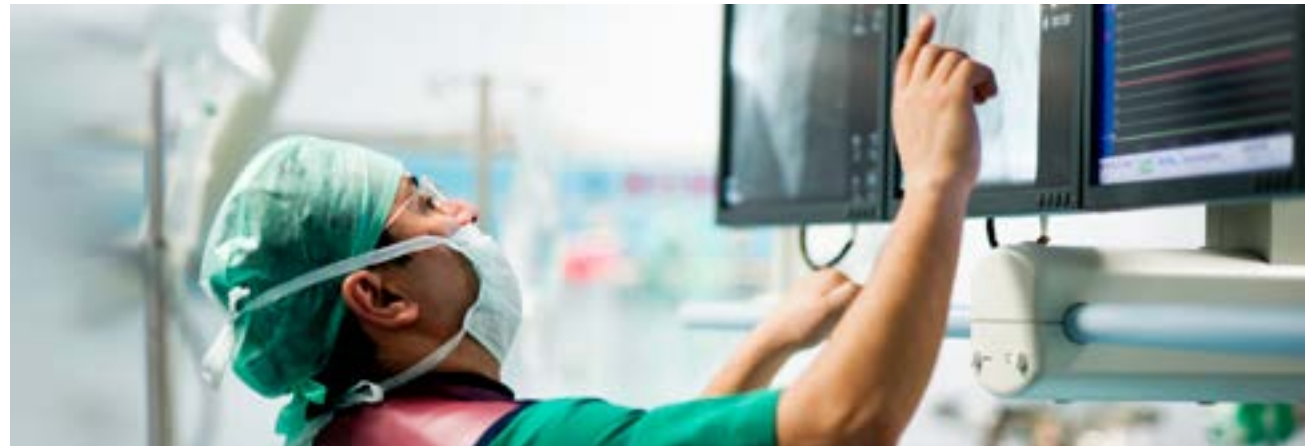




# Combined technique

Aachen, Germany

Level: Advanced



|                            |  |
|----------------------------|--|
| <b>Course director</b>     | <b>Prof. Dr. Martin Wiesmann</b><br>Prof. Wiesmann has many years of experience in the treatment of acute ischemic stroke. Along with his team, he treats over 200 patients each year and conducts ongoing research. |
| <b>Objective</b>           | <b>To understand the latest techniques in mechanical thrombectomy and to practice hands-on with live animal models. Different techniques (with/without intermediate catheters) will be explored.</b>                 |
| <b>Key learning points</b> | Physicians will gain practical knowledge of the different techniques associated with the stent retriever treatment of AIS  |
| <b>Experience</b>          | Physicians need to have performed at least 50 cases  |
| <b>Location</b>            | Uniklinik RWTH Aachen<br>Pauwelsstraße 30, 52074 Aachen, Germany   |
| <b>Format</b>              | <ul style="list-style-type: none"><li>• Lectures</li><li>• Hands-on practice in the animal lab and with flow models</li></ul>  |
| <b>Language</b>            | English, full Russian speaking group available on request  |
| <b>Curriculum level</b>    | Advanced   |





# Combined technique

Aachen, Germany

Level: Advanced

## Course agenda

| Day 1         | Live case and theory   |
|---------------|--|
| 08:30 - 08:45 | Introduction   |
| 08:45 - 09:45 | Presentation: technical aspects of mechanical thrombectomy                       |
| 09:45 - 10:00 | Break  |
| 10:00 - 12:45 | Practical training on animal model - group 1<br>Training on flow model - group 2 |
| 12:45 - 13:15 | Lunch  |
| 13:15 - 16:00 | Practical training on animal model - group 2<br>Training on flow model - group 1 |
| 16:00         | End of course  |





# Full immersion week

Montpellier, France

Level: Advanced



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Vincent Costalat</b><br>Head of neuroradiology department<br>As head of the department and with a team of six colleagues, Prof. Costalat takes care of 350-400 acute ischemic and hemorrhagic stroke patients per year |
| <b>Objective</b>           | <b>Develop a deep understanding of neurovascular management unit and enhance practical knowledge through offering a complete 24/7 immersion in the Montpellier Stroke Unit and its neuroradiology department</b>                |
| <b>Key learning points</b> | Physicians will shadow the on-site staff in their daily activities: patient selection, anesthesia, procedures, follow-up, etc.  |
| <b>Experience</b>          | Physicians need to have performed at least 50 cases   |
| <b>Location</b>            | Hôpital Gui De Chauliac, 80 Avenue Augustin Fliche, 34095 Montpellier, France   |
| <b>Format</b>              | <ul style="list-style-type: none"><li>• 24/7 on call for one week</li><li>• Case attendance</li><li>• Lectures</li><li>• Case discussion</li></ul>  |
| <b>Language</b>            | English, French, Spanish  |
| <b>Curriculum level</b>    | Advanced  |





# Full immersion week

Montpellier, France

Level: Advanced

## Course agenda

### Day 1

**A.M.**

Planning for the week/presentation of the medical team/standard approach treatment

**P.M.**

Elective cases briefing/debriefing/guidelines, patient selection, anesthesia protocols

### Day 2

**A.M.**

Elective case debriefing/Montpellier experience in stroke: review of a series of hospital cases

**P.M.**

How to set up a stroke unit, multidisciplinary approach  
Hands-on with silicon flow-model

### Day 3

**A.M.**

Meet and ride with Emergency Medical Services (depending on schedule)/elective case debriefing

**P.M.**

Review of participants' experience and cases and discuss ways to improve





# Full immersion week

Montpellier, France

Level: Advanced

## Course agenda

### Day 4

All day

AIS case complications: what went wrong? How to anticipate and treat?

### Day 5

All day

Week's case debriefing  
Review of key learnings

### Day 6/7

All day

On call with team





# Advanced acute ischemic stroke training

Hong Kong, China

Level: Advanced



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Yu Chun Ho, Simon</b><br>Chairman, Department of Imaging and Interventional Radiology<br>Chinese University of Hong Kong |
| <b>Objective</b>           | <b>Enhance skills of physicians and reduce complication rates through theory lessons and practical animal lab sessions</b>        |
| <b>Key learning points</b> | Managing AIS cases with mechanical thrombectomy and tips for avoiding complications   |
| <b>Experience</b>          | INRs, Neurologists, Neurosurgeons with at least 2 years of intervention experience  |
| <b>Location</b>            | Hong Kong, China  |
| <b>Format</b>              | Overview of AIS, the Trevo Retriever set-up, case discussions, hands-on flow-model and animal lab practice                        |
| <b>Language</b>            | English, Mandarin   |
| <b>Curriculum level</b>    | Advanced  |





# Advanced acute ischemic stroke training

Hong Kong, China

Level: Advanced

## Course agenda

| Day 1         | Venue: Meeting room, Department of Imaging and Interventional Radiology, 2/F, Main Clinical Building, Prince of Wales Hospital  |
|---------------|---|
| 10:30 - 12:00 | Brunch at Kerry Hotel, Shatin   |
| 12:15 - 12:45 | Shuttle bus from Kerry Hotel to Prince of Wales Hospital  |
| 13:00 - 13:15 | Registration  |
| 13:15 - 13:30 | Introduction of the local stroke service  |
| 13:30 - 14:30 | How to set up a stroke unit   |
| 14:30 - 15:00 | Intravenous thrombolytic therapy  |
| 15:00 - 15:30 | Break   |
| 15:30 - 16:30 | Endovascular intervention: indications and case selection<br>Trepo Retrievers new indication<br>Inclusion and exclusion criteria  |
| 6:30 - 17:30  | Endovascular intervention: set up and techniques<br>Set-up and using Trevo XP ProVue Retriever, AXS Catalyst 6 and DAC Distal Access Catheters, and Merci Balloon Guide Catheter<br>Push and fluff techniques |
| 17:30 - 17:50 | Considerations and use of general anaesthesia in endovascular procedures for acute ischemic stroke  |
| 17:50 - 18:00 | Wrap up and end of day 1<br>Take shuttle bus for group dinner   |





# Advanced acute ischemic stroke training

Hong Kong, China

Level: Advanced

## Course agenda

| Day 2         | Venue: Animal Laboratory of Chinese University of Hong Kong  |
|---------------|--|
| 08:45 - 09:00 | Shuttle bus from hotel to animal lab   |
| 09:00 - 09:30 | Registration<br>Animal lab preparation by Prof. Simon Yu and lab technicians   |
| 09:30 - 13:30 | Hands-on flow model and animal model<br>Flow model x 2 sets (Flowtek and small round shaped) & artificial clots <ul style="list-style-type: none"><li>• Trevo XP ProVue Retriever (4mm for flow model &amp; 6mm for animal model)</li><li>• AXS Catalyst 6 and DAC Distal Access Catheters</li><li>• Merci Balloon Guided Catheter</li><li>• Guidewire</li><li>• Microcatheter</li></ul> |
| 13:30 - 14:00 | Endovascular intervention: Tips and tricks (including emergency issues, complication prevention and handling)  |
| 14:00 - 15:00 | Lunch  |
| 15:00 - 17:30 | Product presentation by China team<br>Endovascular intervention: technologies<br>Stent retriever (Trevo Retrievers vs. other stent retrievers)<br>Other techniques for AIS cases   |
| 17:30         | End of course  |

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# Acute ischemic stroke training

Singapore

Level: Advanced



|                            |  |
|----------------------------|--|
| <b>Course director</b>     | <b>Dr. Wickly Lee</b><br>Director of Joint Neurovascular Services, NNI Singapore   |
| <b>Objective</b>           | <b>Enhance skills of physicians and reduce complication rates through theory lessons and practical animal lab sessions</b> |
| <b>Key learning points</b> | Managing AIS cases with mechanical thrombectomy and tips for avoiding complications  |
| <b>Experience</b>          | INRs, Neurologists, Neurosurgeons with at least 2 years of intervention experience   |
| <b>Location</b>            | National NeuroScience Institute, Singapore   |
| <b>Format</b>              | Overview of AIS, the Trevo Retriever setup, case discussions, hands-on flow-model and animal lab practice                  |
| <b>Language</b>            | English  |
| <b>Curriculum level</b>    | Advanced   |





# Acute ischemic stroke training

Singapore

Level: Advanced

## Course agenda

| Day 1         | Venue: National Neuroscience Institute, Singapore   |
|---------------|---|
| 09:00 - 09:15 | Welcome address   |
| 09:15 - 10:15 | Overview of acute stroke treatment – components for success<br>Rationale for acute stroke therapy |
| 10:15 - 10:45 | Morning tea   |
| 10:45 - 11:30 | Acute stroke treatment  |
| 11:30 - 12:30 | Imaging in acute stroke   |
| 12:30 - 13:30 | Lunch   |
| 13:30 - 14:30 | Mechanical thrombectomy tips and tricks   |
| 14:30 - 15:30 | Case discussion Dr. Wickly Lee<br>Acute dissection, clinical scenarios (opinions, discussions)    |
| 15:30 - 16:00 | Tea break   |
| 16:00 - 17:00 | Stroke unit tour  |
| 17:00         | Adjourn day 1   |





# Acute ischemic stroke training

Singapore

Level: Advanced

## Course agenda

| Day 2         | Venue: National Neuroscience Institute, Singapore   |
|---------------|---|
| 09:00 - 12:30 | Practical session (rotating group 1 & 2)  |
| 09:00 - 10:30 | Group 1: animal lab – thrombectomy procedure  |
| 09:00 - 10:30 | Group 2: Product presentations – Trevo XP ProVue Retriever and Merci and FlowGate Balloon Guide Catheters<br>Flow model – overview of set-up and hands-on |
| 10:30 - 11:00 | Morning tea   |
| 11:00 - 12:30 | Group 1: Animal lab – thrombectomy procedure  |
| 11:00 - 12:30 | Group 2 : Flow model – overview of set-up and hands-on  |
| 12:30 - 13:30 | Lunch   |
| 13:30 - 17:30 | Practical session (rotating group 1 & 2)  |
| 13:30 - 15:00 | Group 2: Animal lab – thrombectomy procedure  |
| 13:30 - 15:00 | Group 1: Product presentations – Trevo XP ProVue Retriever and Merci and FlowGate Balloon Guide Catheters<br>Flow model – overview of set-up and hands-on |
| 15:00         | Tea break   |
| 15:00 - 17:30 | Group 2: Animal lab – thrombectomy procedure  |
| 15:00 - 17:30 | Group 1 : Flow model – overview of set-up and hands-on  |
| 17:30         | End of course   |

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[strykerneurovascular.com](http://strykerneurovascular.com)

Date of Release: MAR/2019

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# Combined technique

Taipei, Taiwan

Level: Advanced



**Course directors**

**Prof. Hon-Man Liu**

Chief of neuroradiology, Department of medical imaging  
Professor, Department of radiology  
Professor, Institute of brain and mind science  
Deputy director, Clinical center for neuroscience and behavior  
National Taiwan University Hospital  
Prof. Hon-Man Liu has published more than 226 articles to date

**Prof. Jiann-Shing Jeng**

Chief of the stroke center, Department of neurology  
National Taiwan University Hospital

**Dr. Lai Yen Jun**

Radiologist, Division of medical imaging  
Far Eastern Memorial Hospital

**Objective**

**To build upon current neurointerventional techniques and reduce complication rates**

**Key learning points**

Physicians will learn advanced tips and tricks through both theoretical and hands-on training

**Experience**

Physicians need to have at least 2 years of experience





# Combined technique

Taipei, Taiwan

Level: Advanced

|                         |  |
|-------------------------|--|
| <b>Location</b>         | The Residence on the 2nd floor, Grand Hyatt Taipei, Taiwan |
| <b>Format</b>           | Discussions and hands-on training with flow models         |
| <b>Language</b>         | Mandarin   |
| <b>Curriculum level</b> | Advanced   |





# Combined technique

Taipei, Taiwan

Level: Advanced

## Course agenda

### Day 1

|               |  |
|---------------|--|
| 09:00 - 09:10 | Welcome and introduction   |
| 09:10 - 09:50 | AIS patient pathway: triage, drip and ship, transfer decision process  |
| 09:50 - 10:30 | Imaging in AIS patient selection, inclusion and exclusion criteria   |
| 10:30 - 10:50 | Break  |
| 10:50 - 11:30 | Intravenous thrombolytic therapy and bridging therapy  |
| 11:30 - 12:10 | Endovascular intervention product setup and techniques:<br>Trepo XP ProVue Retriever, CAT 6 Distal Access Catheter/DAC Catheter,<br>Merci Balloon Guide Catheter |
| 12:10 - 13:30 | Lunch  |
| 13:30 - 14:10 | Treating AIS in the presence of other underlying diseases (ICAD,<br>dissection, etc.)  |
| 14:10 - 14:35 | Pros and cons of using general anesthesia in endovascular procedures   |
| 14:35 - 15:00 | Poor outcomes in acute stroke treatment despite proper reperfusion   |
| 15:00 - 15:30 | Break  |
| 15:30 - 16:10 | Interpreting post-procedure imaging  |
| 16:10 - 17:30 | Case presentation and discussion (3-4 cases)   |
| 17:30         | End of 1st day   |





# Combined technique

Taipei, Taiwan

Level: Advanced

## Course agenda

### Day 2

09:00 - 010:30

Hands-on practice with flow models:

- Trevo XP ProVue Retriever (4mm & 6mm)
- AXS Catalyst 6 Distal Access Catheter and DAC Catheter
- Merci Balloon Guide Catheter
- Guidewires
- Microcatheters

09:30 - 10:45

Break

10:45 - 11:15

Endovascular intervention tips and tricks: problems with access, tandem lesions, preventing complications

11:15 - 12:15

Case presentation and discussion - part 1

12:15 - 13:30

Lunch

13:30 - 15:00

Case presentation and discussion - part 2

15:00 - 15:30

Break

15:30 - 17:00

Trevo Stroke Solutions product overview

17:00

End of course

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# Oxford aneurysm teaching school



Oxford, United Kingdom

Level: Beginner



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Jan Gralla and Dr. Vicky Young</b><br>Both Prof. Gralla and Dr. Young are renowned in the field of interventional neuroradiology. They are supported by a faculty of six well-known and world-renowned INRs. |
| <b>Objective</b>           | <b>To better understand the different techniques behind the endovascular treatment of intra cerebral aneurysms</b>  |
| <b>Key learning points</b> | Physicians will learn the principles and techniques of the endovascular treatment of at least ten cases of intra-cerebral aneurysms   |
| <b>Experience</b>          | Physicians need to have prior experience in the treatment of intra-cerebral aneurysms   |
| <b>Location</b>            | Worcester College<br>Walton Street<br>Oxford<br>OX1 2HB, UK   |
| <b>Format</b>              | Lectures, tutorials, hands-on training with flow models and simulators  |
| <b>Language</b>            | English   |
| <b>Curriculum level</b>    | Beginner  |





# Oxford aneurysm teaching school

Oxford, United Kingdom

Level: Beginner

## Course agenda

### Day 1

**12:00 - 13:30**

Welcome and lunch

**13:30 - 14:15**

Aneurysm diagnosis and complications

**14:15 - 15:00**

Management of patients after a subarachnoid hemorrhage

**15:00 - 15:15**

Break

**15:15 - 16:00**

Selection of patients for endovascular treatment

**16:00 - 16:45**

Endovascular packing techniques

**16:45 - 17:30**

Discussion around current trends in endovascular treatment

**17:30 - 18:45**

Off-site visit to Thomas Willis' house

**18:45**

Dinner - Worcester College





# Oxford aneurysm teaching school

Oxford, United Kingdom

Level: Beginner

### Course agenda

#### Day 2

|                      |   |
|----------------------|---|
| <b>08:30 - 09:15</b> | Natural history of intracranial aneurysms                               |
| <b>09:15 - 10:00</b> | Results of coil embolization in the treatment of intracranial aneurysms |
| <b>10:00 - 10:15</b> | Break   |
| <b>10:15 - 12:45</b> | Group simulator sessions and tutorials                                  |
| <b>12:45 - 13:45</b> | Lunch   |
| <b>13:45 - 15:00</b> | Group simulator sessions and tutorials                                  |
| <b>15:00 - 15:15</b> | Break   |
| <b>15:15 - 16:30</b> | Group simulator sessions, case review and tutorials                     |
| <b>16:30 - 17:15</b> | Complications of endovascular treatments                                |
| <b>17:15 - 17:45</b> | Value of stent and flow diverters                                       |
| <b>17:45 - 18:30</b> | Guest lecture - Are flow disrupters effective?                          |
| <b>19:30</b>         | Dinner - New College  |





# Oxford aneurysm teaching school

Oxford, United Kingdom

Level: Beginner

## Course agenda

| Day 3         |                   |                   |             |
|---------------|-------------------|-------------------|-------------|
| 08:30 - 09:00 | Quiz              |                   |             |
| 09:00 - 10:15 | Group 1           | Group 2           | Group 3     |
|               | Tutorial          | Simulator session | Case review |
| 10:15 - 10:30 | Break             |                   |             |
| 10:30 - 11:45 | Group 1           | Group 2           | Group 3     |
|               | Simulator session | Case review       | Tutorial    |
| 11:45 - 12:15 | Quiz answers      |                   |             |
| 12:15 - 12:30 | Closing remarks   |                   |             |
| 12:30         | End of course     |                   |             |







# Flow diverter technique and patient management

Le Kremlin-Bicêtre, France

Level: Beginner



**Course director**

**Prof. Laurent Spelle**

Hôpital Bicêtre, Le Kremlin-Bicêtre, France

As head of the department and with a large team of experts, Prof. Spelle and Prof. Jacques Moret manage approximately 700 ischemic and hemorrhagic patients per year, in addition to pediatric and multiple neurointerventional disease patient management cases.

**Objective**

**To provide interactive teaching on the treatment of ruptured and unruptured intracranial aneurysms using standard coiling techniques and more complex treatments with flow diversion. Understanding how technique choices affect patient management and mid to long-term outcomes.**

**Key learning points**

With this course, physicians will learn about patient selection, clinical data and existing techniques from Profs. Spelle and Moret. The practical part of this course will make participants familiar with these technologies and techniques.

**Experience**

Physicians need to have performed at least 10 cases

**Location**

Hôpital Bicêtre, 78 Rue du Général Leclerc, 94270 Le Kremlin-Bicêtre, France



# Flow diverter technique and patient management

Le Kremlin-Bicêtre, France

Level: Beginner

|                         |   |
|-------------------------|---|
| <b>Format</b>           | Live cases, lectures, pre-recorded cases review and key learning steps, case sharing, flow models |
| <b>Language</b>         | English, French (upon request)  |
| <b>Curriculum level</b> | Beginner  |



# Flow diverter technique and patient management

Le Kremlin-Bicêtre, France

Level: Beginner

## Course agenda

### Day 1

|                      |   |
|----------------------|---|
| <b>09:00 - 09:30</b> | Presentation of the medical team/standard treatment approach (hemorrhagic and ischemic)   |
| <b>09:30 - 11:30</b> | Live cases: flow diverter elective cases briefing   |
| <b>11:30 - 12:00</b> | Debriefing/patient selection, anesthesia alternative techniques pro and cons  |
| <b>12:30 - 13:30</b> | Lunch <ul style="list-style-type: none"><li>• Review of visitor's own experience and cases</li><li>• Coach on improvement possibilities</li></ul> |
| <b>13:30 - 15:30</b> | Live cases: flow diverter elective cases briefing   |
| <b>15:30 - 16:30</b> | Debriefing/patient selection, anesthesia alternative techniques pro and cons  |
| <b>16:30 - 18:00</b> | NEURI Bicêtre recorded cases training platform deep dive  |





# Flow diverter technique and patient management

Le Kremlin-Bicêtre, France

Level: Beginner

## Course agenda

### Day 2

|               |  |
|---------------|--|
| 09:00 - 09:30 | Debrief on the key learning of the day before  |
| 09:30 - 11:30 | Live cases:flow diverter elective cases briefing   |
| 11:30 - 12:00 | Debriefing/patient selection, anesthesia alternative techniques pro and cons   |
| 12:30 - 13:30 | Lunch  |
| 13:30 - 15:30 | NEURI Bicêtre recorded cases training platform deep dive <ul style="list-style-type: none"><li>• Hemorrhagic cases complication management: how to anticipate and treat?</li></ul> |
| 15:30 - 17:30 | Participants clinical case sharing   |





# Stent-assisted coiling

Lübeck, Germany

Level: Intermediate



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Peter Schramm</b><br>Prof. Peter Schramm has extensive experience in interventional neuroradiology, including both ischemic and hemorrhagic stroke procedures. His hemorrhagic practice includes treatment of aneurysms via stent-assisted coiling and flow diversion. |
| <b>Objective</b>           | <b>Understanding the concept of stent-assisted coiling with Neuroform Atlas Stent System</b>  |
| <b>Key learning points</b> | By attending this course HCPs will learn about stent-assisted coiling including patient selection, treatment options, stent placement, anti-platelet medication etc.  |
| <b>Experience</b>          | Interventional neuroradiologists who have experience as first operator in at least 20 aneurysm coil embolization cases  |
| <b>Location</b>            | Universitätsklinikum Schleswig-Holstein - Lübeck<br>Ratzeburger Allee 160, 23562 Lübeck, Germany  |
| <b>Format</b>              | <ul style="list-style-type: none"><li>• Lectures on stent-assisted coiling, patient management, medication, etc.</li><li>• Patient stent-assisted coiling live case</li><li>• Flow model hands-on session with 3D model of the aneurysm treated during the live case</li></ul>  |
| <b>Language</b>            | English, French, Italian  |
| <b>Curriculum level</b>    | Intermediate  |





# Stent-assisted coiling

Lübeck, Germany

Level: Intermediate

## Course agenda

### Day 1

|               |  |
|---------------|--|
| 16:00         | Welcome and introduction   |
| 16:15 - 16:45 | Neuroform Atlas Stent System and Stryker access  |
| 16:45 - 17:00 | Introduction to the flow model   |
| 17:00 - 17:45 | Experience from Lübeck Center on stent-assisted coiling  |
| 17:00 - 18:00 | Coffee break   |
| 18:00 - 19:00 | Tips and tricks in stent-assisted coiling <ul style="list-style-type: none"><li>• Bifurcation aneurysms</li><li>• Anti-aggregation and management of complications</li></ul> |
| 19:30         | Group dinner   |

### Day 2

|               |                             |
|---------------|-----------------------------|
| 08:30 - 09:00 | Case preparation/discussion |
| 09:00 - 12:00 | Live case                   |
| 12:00 - 15:00 | Hands-on flow model         |
| 15:15 - 16:00 | Wrap up                     |

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# Complex aneurysm treatment: Balloon, stent and flow diverter techniques



Budapest, Hungary

Level: Intermediate



**Course director**

**Dr. Istvan Szikora**

Dr. Szikora was an early pioneer in the endovascular treatment of aneurysms and has extensive experience in all treatment options.

**Objective**

**To understand the use of adjunctive devices, especially in the treatment of intracranial aneurysms**

**Key learning points**

Physicians will learn the techniques of balloon assisted coiling, stent-assisted coiling and flow diversion, focusing on patient selection, indication, preparation and procedural tips and tricks

**Experience**

Physicians need to have performed 20 to 50 cases

**Location**

National Institute of Neurosciences  
Amerikai ut 57, Budapest 1145, Hungary

**Format**

- Lectures on patient selection, periprocedural medication, clinical data on SAC and BAC
- Live case observation
- Hands-on with the flow model with self-expanding stents, remodeling balloons, and flow diverters

**Language**

English

**Curriculum level**

Intermediate





# Complex aneurysm treatment: Balloon, stent and flow diverter techniques

Budapest, Hungary

Level: Intermediate

## Course agenda

| Day 1         | Live case and theory  |
|---------------|---|
| 08:30 - 09:00 | Transportation to institute   |
| 09:00 - 12:00 | Training-part I. Live case observation  |
| 12:00 - 13:00 | Lunch   |
| 13:00 - 17:00 | Training-part II: theory of vessel remodeling, aneurysm stenting and flow diversion           |
| 17:00         | Transportation to hotel   |
| 19:45         | Transfer to restaurant  |
| 20:00         | Group dinner  |
| Day 2         | Hands-on training   |
| 09:00 - 09:30 | Transportation to institute   |
| 09:30 - 14:30 | Demonstration of Stryker products during hands-on practice with flow model in the angio-suite |
| 14:30         | End of course   |







# Flow diversion technique

Nijmegen, The Netherlands

Level: Advanced



**Course director**

**Dr. Joost de Vries**

Dr. de Vries has been involved in the development of the Surpass and Surpass Streamline Flow Diverters from the beginning. His experience and skills will help participants to understand the principles of aneurysm treatment with the Surpass Streamline Flow Diverter.

**Objective**

**To understand the principles of aneurysm treatment with the Surpass Streamline Flow Diverter**

**Key learning points**

Physicians will learn the principles of patient selection and the techniques behind the Surpass Streamline Flow Diverter device

**Experience**

Physicians need to have prior experience as an INR/interventionalist and be familiar with the treatment of intra cerebral aneurysms in other ways besides flow diversion

**Location**

UMC St. Radboud  
Geert Grooteplein-Zuid 10,  
6525 GA Nijmegen, The Netherlands

**Format**

- Lectures
- Hands-on demonstration with flow model and in the animal lab

**Language**

English, German and Dutch

**Curriculum level**

Advanced





# Flow diversion technique

Nijmegen, The Netherlands

Level: Advanced

## Course agenda

### Day 1

|               |  |
|---------------|--|
| 07:15 - 08:00 | Breakfast  |
| 08:00 - 09:15 | Transfer to Radboud University Hospital "Het Kasteeltje"   |
| 09:15 - 10:45 | Flow diverter technical overview   |
| 10:45 - 12:00 | Radboud clinical experience  |
| 12:00 - 13:00 | Working lunch and transfer to animal lab   |
| 13:00 - 15:00 | Hands-on animal lab <ul style="list-style-type: none"><li>• Flow diverter evaluation</li><li>• Tips &amp; tricks</li><li>• Tri-axial access approach</li></ul> |
| 15:00 - 16:00 | Debrief and sharing of best practices  |
| 16:00         | End of course  |

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# Stroke patient management and treatment (hemorrhagic and ischemic)

stryker

Paris, France

Hemorrhagic stroke

Level: Advanced



|                            |  |
|----------------------------|--|
| <b>Course directors</b>    | <b>Dr. Michel Piotin</b><br>Head of the department of interventional neuroradiology<br><b>Dr. Raphael Blanc</b><br>Deputy head of the department of interventional neuroradiology  |
| <b>Objective</b>           | <b>To understand the use of adjunctive devices, especially occlusion balloon catheters, self-expanding stents and flow diverters in the treatment of intracranial aneurysms</b>  |
| <b>Key learning points</b> | Physicians will learn the main principles of balloon-assisted coiling, stent-assisted coiling and flow diversion with a focus on patient selection, indications, antiplatelet aggregation protocols and procedural tips and tricks |
| <b>Experience</b>          | Physicians need to have performed at least 50 cases per year   |
| <b>Location</b>            | Fondation Adolphe de Rothschild<br>25-29 Rue Manin, 75019 Paris, France  |





# Stroke patient management and treatment (hemorrhagic and ischemic)



Paris, France

Level: Advanced

|               |  |
|---------------|--|
| <b>Format</b> | 1-day interactive workshop: <ul style="list-style-type: none"><li>• Pre and post-deployment patient management</li><li>• Anesthetist lectures on D.A.P.T.</li><li>• Lectures</li><li>• Live cases</li><li>• Interactive cases debriefing</li></ul> |
|---------------|--|

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|                 |                 |
|-----------------|-----------------|
| <b>Language</b> | English, French |
|-----------------|-----------------|

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|                         |          |
|-------------------------|----------|
| <b>Curriculum level</b> | Advanced |
|-------------------------|----------|





# Stroke patient management and treatment (hemorrhagic and ischemic)

Paris, France

Level: Advanced

## Course agenda

| Day 1         | Live case and theory  |
|---------------|---|
| 08:30 - 09:30 | Presentation of the team's experience with balloon-assisted coiling, stent-assisted coiling and flow diversion<br>Protocol for anti-aggregation medication                                    |
| 09:30 - 11:30 | Live cases  |
| 11:30 - 12:30 | Case debriefing   |
| 12:30 - 13:30 | Lunch   |
| 13:30 - 15:30 | Live cases  |
| 15:30 - 16:00 | Case debriefing   |
| 16:00 - 17:00 | Tips and tricks for complex aneurysm treatment/coiling:<br>1. Bifurcation aneurysms<br>2. Complication management<br>3. High-resolution imaging of stents with flat panel detector technology |
| 17:00         | End of course   |





# Full immersion week



Montpellier, France

Hemorrhagic stroke

Level: Advanced



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Prof. Vincent Costalat</b><br>Head of neuroradiology department<br>As head of the department and with a team of six colleagues, Prof. Costalat takes care of 350-400 acute ischemic and hemorrhagic stroke patients per year |
| <b>Objective</b>           | <b>Develop a deep understanding of neurovascular management unit and enhance practical knowledge through offering a complete 24/7 immersion in the Montpellier Stroke Unit and its neuroradiology department</b>                |
| <b>Key learning points</b> | Physicians will shadow the on-site staff in their daily activities: patient selection, anesthesia, procedures, follow-up, etc.  |
| <b>Experience</b>          | Physicians need to have performed at least 50 cases   |
| <b>Location</b>            | Hôpital Gui De Chauliac, 80 Avenue Augustin Fliche, 34095 Montpellier, France   |
| <b>Format</b>              | 24/7 on call for one week <ul style="list-style-type: none"> <li>• Case attendance</li> <li>• Lectures</li> <li>• Case discussions</li> </ul>   |
| <b>Language</b>            | English, French, Spanish  |
| <b>Curriculum level</b>    | Advanced  |





# Full immersion week

Montpellier, France

Level: Advanced

## Course agenda

### Day 1

**A.M.**

Planning for the week/presentation of the medical team/standard approach treatment

**P.M.**

Elective cases briefing/debriefing /guidelines, patient selection, anesthesia protocols

### Day 2

**A.M.**

Elective case debriefing/Montpellier experience in stroke: review of a series of hospital cases

**P.M.**

How to set up a stroke unit, multidisciplinary approach  
Hands-on with silicon flow-model

### Day 3

**A.M.**

Meet and ride with Emergency Medical Services (depending on schedule)/elective case debriefing

**P.M.**

Review of participants' experience and cases and discuss ways to improve



# Full immersion week

Montpellier, France

Level: Advanced

## Course agenda

### Day 4

All day

Hemorrhagic case complications: what went wrong? How to anticipate and treat?

### Day 5

All day

Week's case debriefing  
Review of key learnings

### Day 6/7

All day

On call with team







# Immersion days

Le Kremlin-Bicêtre, France

Level: Advanced



**Course director**

**Prof. Laurent Spelle**

Hôpital Bicêtre, Le Kremlin-Bicêtre, France

As head of the department and with a large team of experts, Prof. Spelle and Prof. Jacques Moret manage approximately 700 ischemic and hemorrhagic patients per year, in addition to pediatric and multiple neurointerventional disease patient management cases.

**Objective**

**Develop a deep understanding of the neurovascular management unit and enhance practical knowledge through offering a complete 24/7 immersion at NEURI, the Hôpital Bicêtre Neurointerventional Department**

**Key learning points**

With this course, physicians will learn about patient selection, clinical data and existing techniques from Profs. Spelle and Moret. The practical part of this course will make participants familiar with these technologies and techniques.

**Experience**

Physicians need to have performed at least 50 cases

**Location**

Hôpital Bicêtre, 78 Rue du Général Leclerc, 94270 Le Kremlin-Bicêtre, France

**Format**

Live cases, lectures, pre-recorded cases review and key learning steps, case sharing, flow models

**Language**

English, French (upon request)

**Curriculum level**

Advanced





# Immersion days

Le Kremlin-Bicêtre, France

Level: Advanced

## Course agenda

The participants will follow the activity of the neurointerventional department and the program below may vary depending on the patient emergencies. In case the various key procedural points (e.g. anesthesia, patient selection) cannot be presented during the day, the course director and his team will provide specific lectures on those topics.

### Day 1

Presentation of the medical team/standard treatment approach (hemorrhagic and ischemic)

Live cases: elective cases briefing/debriefing/guidelines, patient selection, anesthesia alternative techniques pro and cons

NEURI Bicêtre recorded cases training platform, based on participants' needs

Review of visitor's own experience and cases, coach on possibilities for improvement

### Day 2

Live cases: elective cases briefing/debriefing/guidelines, patient selection, anesthesia alternative techniques pro and cons

Hemorrhagic case complications: what went wrong? How to anticipate and treat?

AIS case complications: what went wrong? How to anticipate and treat?

Review of key learnings





# Aneurysm access and coiling

Bangkok, Thailand

Level: Beginner



|                            |   |
|----------------------------|---|
| <b>Course director</b>     | <b>Assoc. Prof. Dr. Anchalee Churojana</b><br>President, Royal College of Radiologist of Thailand,<br>Department of Radiology, Faculty of Medicine, Siriraj Hospital, Mahidol University;<br>Bangkok, Thailand. |
| <b>Objective</b>           | <b>Enhance skills of physicians and reduce complication rates through theory lessons and practical flow model sessions</b>  |
| <b>Key learning points</b> | Managing AIS cases with mechanical thrombectomy and tips for avoiding complications   |
| <b>Experience</b>          | INRs, Neurologists, Neurosurgeons with 1-2 years of intervention experience   |
| <b>Location</b>            | Siriraj Training and Education Center for Clinical Skills: SiTEC<br>Srisavarindhira Building, 4th floor, Siriraj Hospital, Bangkok, Thailand  |
| <b>Format</b>              | Overview of aneurysms, treatment options, coiling, case discussions,<br>hands-on flow-model and animal lab practice   |
| <b>Language</b>            | English   |
| <b>Curriculum level</b>    | Beginner  |





# Aneurysm access and coiling

Bangkok, Thailand

Level: Beginner

## Course agenda

### Day 1

**09:00 - 12:00**

Training – Part I  
Aneurysmal vasculopathies: Basic principles and imagings  
Technical aspect: Devices in aneurysm coiling  
Difficult arch, alternative route and working projection  
Complication management: Pre- and post-procedural antiplatelet and antithrombolytics, coagulation cascades

**12:00 - 13:00**

Lunch

**13:00 - 16:00**

Training – Part II  
Recorded case presentation



# Aneurysm access and coiling

Bangkok, Thailand

Level: Beginner

## Day 2

**09:00 - 10:00**

Training – Part III  
Instruction on Stryker products to be used during hands-on practice

**10:15 - 12:00**

Breakout sessions  
Group I: Hands-on with model  
Access technique in challenging anatomy  
Technique for small aneurysms  
Techniques for different types of aneurysms  
Group II: Open discussion  
Attendees prepare some cases for discussion in this session

**12:00 - 13:15**

Lunch

**13:15 - 15:00**

Breakout sessions  
Group I: Open discussion  
Attendees prepare some cases for discussion in this session  
Group II: Hands-on with model  
Access technique in challenging anatomy  
Technique for small aneurysms  
Techniques for different types of aneurysms

**15:00**

Discussion and close





# Endovascular aneurysm treatment with balloon and stent-assisted coiling



Bangkok, Thailand

Hemorrhagic stroke

Level: Intermediate



|                            |  |
|----------------------------|--|
| <b>Course director</b>     | <b>Assoc. Prof. Dr. Anchalee Churojana</b><br>President, Royal College of Radiologist of Thailand,<br>Department of Radiology, Faculty of Medicine, Siriraj Hospital, Mahidol University;<br>Bangkok, Thailand |
| <b>Objective</b>           | <b>Enhance skills of physicians and reduce complication rates through theory lessons and practical flow model sessions</b>   |
| <b>Key learning points</b> | Managing AIS cases with mechanical thrombectomy and tips for avoiding complications  |
| <b>Experience</b>          | INRs, Neurologists, Neurosurgeons with at least 2 years of intervention experience   |
| <b>Location</b>            | Siriraj Training and Education Center for Clinical Skills: SiTEC<br>Srisavarindhira Building, 4th floor, Siriraj Hospital, Bangkok, Thailand   |
| <b>Format</b>              | Review of aneurysms treatment options, assisted coiling with balloon and stenting, case discussions, hands-on flow-model and animal lab practice   |
| <b>Language</b>            | English  |
| <b>Curriculum level</b>    | Intermediate   |





# Endovascular aneurysm treatment with balloon and stent-assisted coiling

Bangkok, Thailand

Level: Intermediate

## Course agenda

### Day 1

09:00 - 12:00

Training – Part I

- Basic principles of aneurysmal vasculopathy and aneurysm imaging
- Medication in aneurysm treatment
- Treatment of wide neck aneurysms
- Complication management

12:00 - 13:00

Lunch

13:00 - 16:00

Training – Part II

- Aneurysmal cases discussion
- Interesting cases from participants



# Endovascular aneurysm treatment with balloon and stent-assisted coiling

Bangkok, Thailand

Level: Intermediate

## Course agenda

### Day 2

08:30 - 09:00

Training –Part III

- Instruction on Stryker products to be used during hands-on practice

10:15 - 12:00

Group I

- Balloon-assisted coiling

Group II

- Stent-assisted coiling

12:00 - 13:15

Lunch

13:15 - 16:00

Group I

- Stent-assisted coiling

Group II

- Balloon-assisted coiling

16:00 -16:30

Wrap up and adjourn







# Flow diversion technique

Guragon, India

Level: Advanced



**Course director**

**Dr. Gaurav Goel**

Associate Director and HOD

Department of Interventional Neurosurgery, Medanta Hospital, Gurgaon

Dr. Goel and team are pioneers in comprehensive stroke care, both hemorrhagic and ischemic, in Medanta Medicity Hospital, Gurgaon. His center treats approximately 150 aneurysms and almost 50 cases of flow diversion per year. Dr. Goel has a tremendous amount of Surpass Streamline Flow Diverter case experience and is a very respected proctor for the device.

**Objective**

**To understand the concepts of flow diversion and the principles of aneurysm treatment with the Surpass Streamline Flow Diverter**

**Key learning points**

Physicians will learn about the concept of flow diversion and the design intent behind the Surpass Streamline Flow Diverter device through hands-on sessions with flow models. They will also learn about patient selection and planning of a flow diversion case including anesthesia protocols, pre and post procedure medications, technical tips, tricks of Surpass Streamline Flow Diverter deployment, etc. They will be exposed to the practical aspects of a flow diversion case by attending an actual case inside the cath lab with the proctors.

**Experience**

Physicians need to have performed at least 10 cases





# Flow diversion technique

Guragon, India

Level: Advanced

|                         |   |
|-------------------------|---|
| <b>Location</b>         | Medanta Medicity Hospital, Gurgaon, Harayana, India   |
| <b>Format</b>           | Lectures on the concept of flow diversion and the design intent behind Surpass Streamline Flow Diverter<br>Attending an actual case inside the cath lab with the proctors |
| <b>Language</b>         | English   |
| <b>Curriculum level</b> | Advanced  |



# Flow diversion technique

Guragon, India

Level: Advanced

## Course agenda

### Day 1

|               |   |
|---------------|---|
| 09:00 - 09:15 | Welcome and introductions   |
| 09:15 - 10:00 | Concepts behind flow diversion and the Surpass Streamline Flow Diverter     |
| 10:00 - 10:15 | Anesthesia protocols, anti-platelet regime and post procedure critical care |
| 10:15 - 10:45 | Importance of access - "Success starts from access"                         |
| 10:45 - 11:00 | Break   |
| 11:00 - 11:45 | Case examples - videos  |
| 11:45 - 12:45 | Medanta Surpass Streamline experience                                       |
| 12:45 - 13:45 | Lunch   |
| 13:45 - 14:45 | Transfer to Medanta   |
| 14:45 - 19:00 | Hands-on with flow model, attendee presentations and discussions            |
| 19:00         | Departure for dinner  |



# Flow diversion technique

Guragon, India

Level: Advanced

## Course agenda

### Day 2

|               |                                      |
|---------------|--------------------------------------|
| 09:00 - 09:15 | Feedback from day 1                  |
| 09:15 - 09:45 | Case debriefing                      |
| 09:45 - 10:00 | Break                                |
| 10:00 - 12:45 | Live case                            |
| 12:45 - 14:00 | Lunch                                |
| 14:00 - 14:15 | Attendee conclusions and discussions |
| 14:15         | End of workshop and departures       |



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# ICAD patient management

Taipei, Taiwan

Level: Advanced



**Course directors**

**Prof. Wong Ho Fai**

Professor of radiology.  
Chang Gun Memorial Hospital, Taipei, Taiwan.  
President of the Neuroradiological Society of Taiwan.  
Vice President of XXI Symposium Neuroradiologicum, World Congress of Neuroradiology.  
Member of the Executive Committee of Radiological Society of Republic of China.

**Prof. Hon-Man Liu**

Chief of neuroradiology, Department of medical imaging.  
Professor, Department of radiology.  
Professor, Institute of brain and mind science.  
Deputy director, Clinical center for neuroscience and behavior.  
National Taiwan University Hospital.  
Prof. Hon-Man Liu has published more than 226 articles to date.

**Objective**

**To build upon current neurointerventional techniques and reduce complication rates.**

**Key learning points**

Physicians will learn advanced tips & tricks through both theoretical and hands-on training.

**Experience**

Physicians need to have at least 2 years of experience.





# ICAD patient management

Taipei, Taiwan

Level: Advanced

|                         |   |
|-------------------------|---|
| <b>Location</b>         | The Residence on the 2nd floor, Grand Hyatt<br>Chang Gung Memorial Hospital |
| <b>Format</b>           | Discussions and hands-on training with flow models                          |
| <b>Language</b>         | English, Mandarin   |
| <b>Curriculum level</b> | Advanced  |



# ICAD patient management

Taipei, Taiwan

## Intracranial atherosclerosis (ICAD)



Level: Advanced

### Course agenda

#### Day 1

|               |  |
|---------------|--|
| 08:30 - 09:00 | Intracranial atherosclerosis disease anatomy and treatment history               |
| 09:00 - 09:40 | Patient selection  |
| 09:40 - 10:00 | Break  |
| 10:00 - 11:00 | Treatment techniques with Wingspan Stent System and Gateway PTA Balloon Catheter |
| 11:00 - 12:30 | Live case discussion   |
| 12:30 - 14:00 | Lunch  |
| 14:00 - 17:00 | Case discussions   |
| 17:00         | End of 1st day   |

#### Day 2

|               |                      |
|---------------|----------------------|
| 08:30 - 09:00 | Transfer and welcome |
| 09:00 - 10:00 | Case briefings       |
| 10:00 - 17:00 | Live cases           |
| 17:00         | End of course        |



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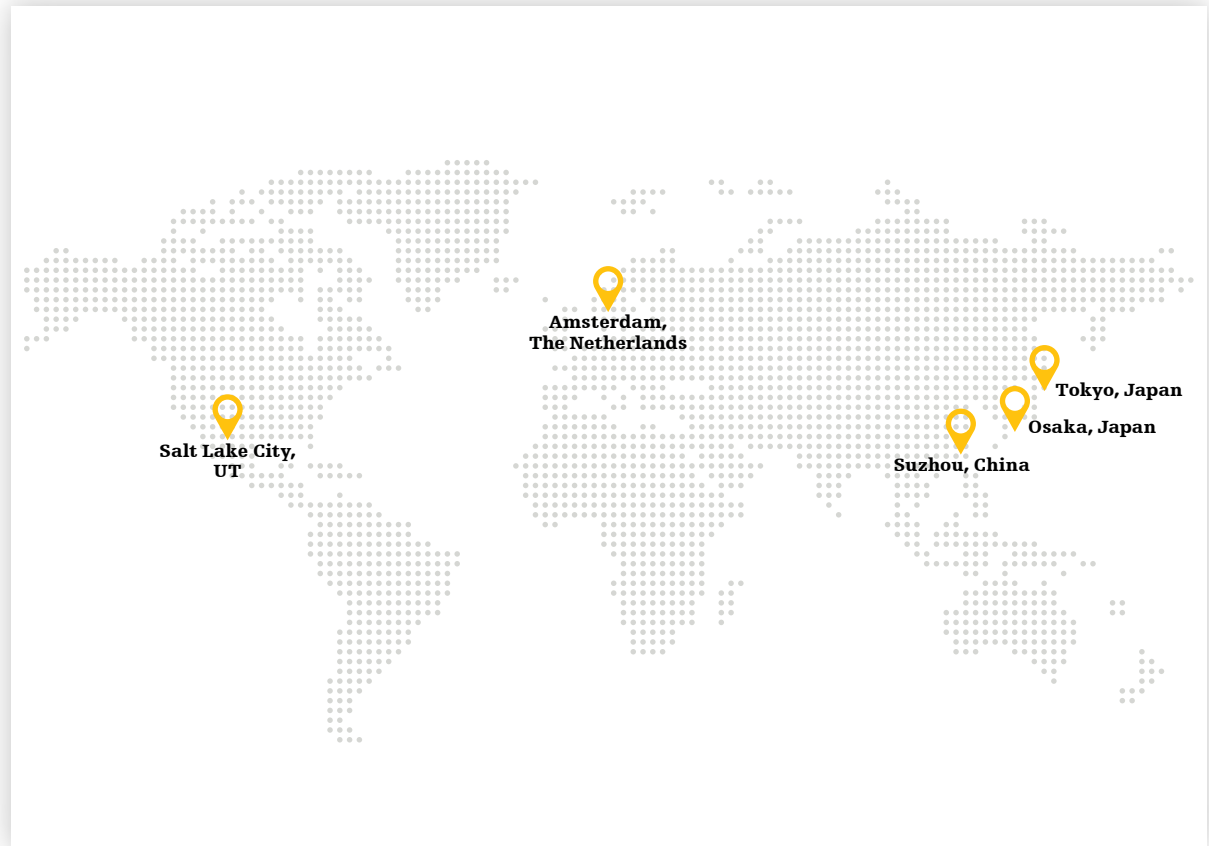


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Take your experience to the next level at **Stryker's** worldwide network of SKILL training centers. Our fully equipped labs and customized curriculums offer targeted, personalized training with comprehensive, state-of-the-art facilities and resources.

Dedicated to educating healthcare professionals to improve patient care, our globally connected training centers deliver hands-on learning opportunities, including:

- Simulation
- Flow models
- Emerging virtual technologies
- C-arm and other leading-edge lab equipment



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## SKILL Training centers



### Simulation

Stryker offers computer-assisted medical simulation technology for the experiential training of neurointerventional procedures. Providing a realistic, reproducible and safe environment, our simulators allow proctors and participants to

- Create personalized curriculum
- Assess procedural skills
- Customize programs with progressive levels of training

### Flow models

Performed under **real-time simulated fluoroscopy**, our flow models enable participants to develop the technical aspects of neuroendovascular procedures and treatments such as

- Diagnostic angiography
- Aneurysm embolization with coils
- Balloon- and stent-assisted coiling
- Mechanical thrombectomy
- Angioplasty and stenting



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## Suzhou, China



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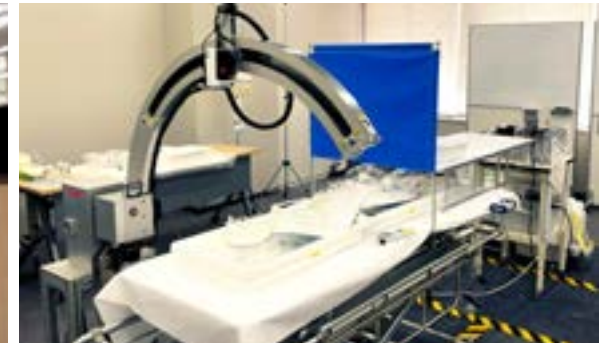
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## Tokyo, Japan



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