Every year, there is fierce competition for 150 seats at the ESTRO stereotactic radiotherapy course. This year, in the shadows of the ancient Acropolis, an army of 150 radiotherapy professionals gathered for five days to learn about our latest weapon against cancer.

The first talk was an eloquent oration from physics Professor Dirk Verellen from Brussels that would have galvanised Hippocrates himself, complete with the cautionary message, “this machine has no brain, use your own!” After brief introductions, we started off with a historical overview of the transition from frame-based to frameless image-guided radiosurgery, and the transition from head-frames to body-frames, to frameless image-guided stereotactic ablative body radiotherapy.

This was followed by examples of complex clinical cases, gathered together and presented as “the good, the bad and the ugly”. The three clinical cases were an appetizer, whetting our appetites for more information promised over the coming week. In the afternoon, we were treated to a most expressive debate between Professor Matthias Guckenberger from Zurich and Professor Morten Hoyer from Denmark, regarding the applicability of the linear quadratic model when hypofractionated courses of radiotherapy are prescribed. One of the delicious things about the ESTRO stereotactic radiotherapy (SBRT) course is that it made me think again about things that I thought I knew the answers to; and so even for students who had been practising stereotactic radiosurgery (SRS) / stereotactic body radiation therapy (SBRT) for a number of years, this course was very useful.

On the second day, we covered prescriptions, dose constraints, margins, motion management (including gating and breath hold) and different image guidance techniques. Differences between linacs were highlighted – for example, prescriptions for gamma knife, Cyberknife and intensity-modulated radiation therapy (IMRT) or Arc techniques. The pros and cons of Type A and Type B treatment planning algorithms were explained. Comparisons were made between different planning techniques, for example Arc plans, non-coplanar IMRT and coplanar IMRT. Flattening filter free beams, which are used in CT for planning, and the uncertainties brought in by the interplay effect on volumetric modulated arc therapy (VMAT) and IMRT techniques with respiratory motion were discussed. We also discussed SBRT class solutions for specific sites, for example in VMAT plans for SBRT spine. At the end of the day, we indulged in a video followed by case reviews of radiotherapy errors from around the world by Dr Mischa Hoogeman, medical physicist from the Erasmus University Medical Centre in Rotterdam, The Netherlands. This was followed by a social event where we had the opportunity to engage informally with our eight teachers and the other students from around Europe, as well as to enjoy a beautiful sunset over the Mediterranean sea.

On the third day, we focused on more clinical topics. Professor Guckenberger covered doses, clinical scenarios, rationale, success rates in com-parison to surgery or fractionated radiotherapy, organs at risk, and the latest clinical papers in relation to treating cancers of the lung, prostate and pancreatic cancer. To say these talks were comprehensive would be an understatement and going over these talks again after the conference I feel there is nothing I would add or subtract to make them better. On this day, we also split up into four groups so that we could go over one clinical planning session for either lung or liver in smaller camps. I attended the liver Cyberknife session run by Dr Alejandra Méndez Romero from Erasmus University Medical Centre and was very impressed by the detail and the opportunity to discuss technical aspects of planning a liver SBRT case.

On the fourth day, we focused again on clinical topics, which were run by Dr
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Silvia Chiesa's perspective
In the birthplace of democracy, in the shade
of the foundations of western civilisation, past
cultural achievements met modern
technological advances in stereotactic body
radiotherapy, examined in depth
during this excellent ESTRO course.

Stereotactic body radiation therapy (SBRT)
has evolved over the past 15 years, with
many exciting developments in techniques
and technologies, including intensity
modulated radiation therapy (IMRT)
beams, intensity-modulated arc therapy,
particle-based therapy, and the introduction
of image-guided radiotherapy. These
have resulted in highly conformal dose
distribution, as required in stereotactic
treatments. This emerging radiotherapy
procedure is expanding the research
landscape and knowledge is improving by
the day.

This was the 5th ESTRO teaching course
on clinical practice and implementation
of image-guided stereotactic body
radiotherapy. Held over five days, it
addressed the challenges of current
progress in technology and knowledge.
The course's introduction was the theme of
the first day: the excellent teachers presented
their experience and introduced us to the
historical background in the radiobiological
and modelling world, and the uncertainties
and risk in an oncology context. The
second day was dedicated to technology
and physics, with in-depth lectures on the
concept of margins, the management of
target with respiration-induced motion,
on treatment planning, plan evaluation
and on quality assurance. During the third
and fourth day the teachers presented
experimental data showing the efficacy
and the safety of stereotactic treatment
in stage I non-small cell lung cancer,
in oligometastatic disease, in vertebral
metastases, in primary liver cancer, and in
prostate and pancreatic cancer. The last day
was dedicated to practical implementation
from the point of view of clinicians,
physicists and radiotherapists.

The course was fully booked, with more
than 140 participants. The faculty teachers
and the audience of physicists, clinicians
and RTTs produced real-life examples and
instigated exciting clinical discussions.
The teachers interacted well with participants
and among themselves in a way that
underlined the take-home messages.
This stimulated questions and comments
throughout the course. Inevitably, the most
fruitful discussions and exchanges took
place during the coffee breaks, and over
lunch, inspired by the fresh and authentic
Greek cooking in the shadow of the
Acropolis and the temple of Zeus.

The use of a voting pad was an easy way
to reproduce a real-life condition, but

a particularly useful idea was the 'split
sessions', which took place during the third
and the fourth day. Participants could sign
up for different clinical sessions, including
brain cancer, physics or RTT sessions.
Everyone took advantage of this close
interaction in smaller rooms, discussing one
or two clinical cases presented by a radiation
oncologist and a physicist and taking in
every step of the process.

This course is a useful resource for
both those who are starting stereotactic
treatments and also for the more
experienced. It helps us to understand
the clinical rationale of this technique
and it highlights what is mandatory,
recommended, optional, not sufficient or
not recommended to build up successful
surgical radiation surgery, stereotactic
radiotherapy and stereotactic body radiation
therapy programmes.

Athens in June was a very successful
location in which to hold this ESTRO
course. The number one social event was
the night we spent on the beach, enjoying
delicious food at sunset and dancing
together as a group of friends from all over
the world.

I would like to thank the organisers, the
course directors and the brilliant teachers
for making us feel comfortable and for
their educational skills, and I would really
like to recommend this course to others.
Borrowing the course director’s words: “I
believe that we need this course (and others)
more than ever.”

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Romero and Professor Guckenberger.
These included overviews of primary and
metastatic liver SBRT, and spine SBRT.
Once again we split up into four groups
for smaller sessions focusing on spine and lung
SBRT planning.

I remember waking up on the last day
excited, having had such a brilliant
week, satiated with delicious Greek food,
breathtaking surroundings, and an amazing
course that had given me so many new ideas
and hope for my patients. Every teacher
from every centre pitched in on the final
discussions, which were about what they
had learnt whilst setting up their own SBRT/
SRS programmes at their centres. There
was a particularly interesting discussion
about who should be present during
treatment, which illustrated the differences
in practice across the continent, and of
course, between centres that have been
doing SBRT/SRS for years as opposed to
those that had just started. In all, I felt the
course was comprehensive, and I learned
many practical things which I will be able
to incorporate into my practice. The course
was interactive, inspirational and thought-
provoking and I tho-roughly recommend
it to anyone practising SRS or SBRT. On
behalf of all the participants, we thank the
lecturers and organisers, and hope we meet
again soon at the next exciting course run
by the ESTRO School.