CORAIL® Hip System
Faculty Dossier
First implanted in 1986 by the ARTRO Group in France, published evidence for the CORAIL Hip System proves that it is a class-leading hydroxyapatite (HA) coated cementless implant. In many markets it is considered the standard of care for primary total hip arthroplasty (THA) when compared with other cementless hip implants1-3.

The CORAIL Stem is designed to provide secure initial and long-term fixation mechanical stability within the femur. This is achieved by a combination of shape, surface features, implant material and choice of biological material.

Since 1986, the stem design has remained unchanged, giving confidence that the performance of the CORAIL Hip System reported historically is representative of the results that can be expected with the implant in the future.

Currently, the CORAIL family of products includes a variety of styles and sizes to suit the majority of patient pathologies. The portfolio will remain ever-evolving to meet all orthopaedic surgeon and patient requirements in the future.
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The ARTRO Group – The Original Seven

The ARTRO Group (Association for Research in Traumatology and Orthopaedics) was established by seven Orthopaedic Surgeons, all friends who met at Medical School in Lyon, France. The intended focus was to maintain a point of contact for sharing experiences and secondly, was the research and development of cementless implants. Today, the original seven members are joined by an additional six members who are all practising Orthopaedic Surgeons in Annecy or Lyon, France. Each individual contributes by bringing specific expertise and knowledge to the team.

From the beginning, the ARTRO Group had confidence in the concept of conservative Total Hip Arthroplasty (THA) and bone preservation. Therefore, one of the objectives was to create a hip stem and surgical philosophy that would be less invasive to enable minimal bone removal. The ARTRO Group also believed that there was greater likelihood of long-term clinical survivorship and success by working with a patient’s natural biology and anatomy. This accumulated in the research, development and launch of the CORAIL Hip System in 1986. Today, the long-term clinical results for the CORAIL Hip System available in the major National Joint Registries worldwide have validated these beliefs.

The importance of educating surgeons on the unique surgical technique was integral to the global acceptance of the CORAIL Hip System and bone preserving philosophy. The CORAIL Learning Centres were originally established by the ARTRO Group and have become a rite of passage for all new CORAIL users worldwide. The comprehensive training and education offered by the design surgeons and other experts enable delegates to share various perspectives with like-minded peers and add to an overall learning experience.

More than a quarter of a century ago, the ARTRO Group was established upon a common bond of friendship, loyalty and trust. Since 1986, the CORAIL journey has continued and all ARTRO Group members remain united in supporting and continuing to develop the CORAIL Hip System through clinical experience, biomechanical research and professional education.
The ARTRO Group (Original Seven)
Dr Jean-Pierre Vidalain

Dr Jean-Pierre Vidalain is one of the original ARTRO Group members and has helped to forge what the team is today. He received his orthopaedic training in Lyon with Prof Georges de Mourgues, one of the French pioneers in Total Hip Replacement. He also spent some time, in the early 1970’s, with Sir John Charnley in Wrightington (United Kingdom) and with Mr. GK McKee in Norwich (United Kingdom). Therefore, his major interest is surgery of the hip, with a special mention to hip biomechanics. His passion for bone biology led him to consider a more biological approach for implant fixation and to participate, as co-designer, in the development of the CORAIL Hip System.

Dr Vidalain routinely presents on the history, research and development, as well as the long-term clinical results associated with the CORAIL stem. He is frequently invited as a guest speaker, by many Institutions and Hip Associations worldwide. He also acts as a chairperson at numerous international meetings.

As a practicing orthopaedic surgeon he was based, since 1976, at the Clinique d’Argonay, Annecy, France, which was established as a CORAIL Surgeon Visitation Centre in 1995. Although now officially retired from practice he remains an active founding member of the ARTRO Group with ongoing interests in research, education and training. Among many other responsibilities, he is an honorary member of several National and International Orthopaedic Societies and, he is a reviewer for different orthopaedic publications.

Dr Jean-Claude Cartillier

Dr Jean-Claude Cartillier received his medical training at the University of Lyon, France and qualified in orthopaedics under the service of Prof Trillat.

Prof Trillat was renowned for the treatment of sports injuries including knee meniscal and ligament surgery. Based in Lyon at the Mutualiste Private Clinic, Dr Cartillier established the Orthopaedic Department in 1977 where he practiced until 2007.

He is a member of the French Orthopaedic Society, the French Hip Society and the European Orthopaedic Society (EFORT). Dr Cartillier is a founding member of the ARTRO Group, where he has played an instrumental role in research and development and also took on a leadership role.

He is presently in charge of the regulatory affairs for the ARTRO Group (patents, judicial affairs and ARTRO Group Institute).
**Dr Bruno Baläy**

Dr Bruno Baläy is one of the 7 founding members of the ARTRO Group. Formerly a lecturer in the Orthopaedic Department of the Lyon University Hospital, he was also an assistant to Prof Georges de Mourgues, France’s pioneer in Total Hip Arthroplasty.

Dr Baläy for 25 years had an orthopaedic practice at the Polyclinique du Beaujolais, which he established with some friends. During these years, he organised in conjunction with other members of the ARTRO Group, educational and training days on total hip prosthetics where they welcomed to the clinic many young orthopaedic surgeons.

Dr Baläy was equally active at the Lyon Sud Hospital under the service of Professor Jean Luc Lerat where he was able to share his experience with hip surgery.

With the ARTRO group, he participated in the conception of the CORAIL Hip System and has continued with its research and development. In love with the language of “Cervantes”, he continues today to bring the evolution of the CORAIL Hip System to Hispanic countries.

**Dr Claude Charlet**

Although Dr Claude Charlet was born and raised in the Savoie region of France, he is a pure product of the Lyonnaise school. He studied at the Medical School of Lyon, and trained as a surgeon at the University Hospital of Lyon, in particular under the tutelage of Prof Georges de Mourgues, one of the first surgeons in France to dedicate himself solely to prosthetic surgery of the hip.

Dr Charlet practiced orthopaedic surgery in the same private clinic in Lyon from 1974 to 2005 and primarily dealt with hip surgery both primary and revision. In 1981, he co-founded the ARTRO Group and was involved in the conception and development of the Titan and the CORAIL prosthesis.

Dr Charlet is currently retired but continues to participate in the ARTRO Group activities and the evolution of the implants.
**Dr Louis Setiey**

Dr Louis Setiey is a founding member of the ARTRO Group. He was trained at the University of Lyon under the tutelage of Prof Georges de Mourgues, a French pioneer in hip arthroplasty. He completed his studies with Prof Kerboull in Paris, France and Prof ME Müller in Bern, Switzerland.

Dr Setiey began his orthopaedic private practice at the Polyclinique du Beaujolais in 1977 and his activities concentrated on the hip and knee surgery. He was a member of the Jade Group who designed a Total Knee Prosthesis manufactured and distributed by Stryker-Howmedica.

With the ARTRO Group, in 1982 they designed the Titan, a cemented hip prosthesis followed in 1986 by the non cemented CORAIL, which developed into a whole CORAIL Hip System. For many years, they organised at Dr Setiey’s clinic learning and educational courses and presented papers on the CORAIL Hip System at SOFCOT.

Dr Setiey is still today an active participant at the CORAIL Learning Centre’s in Annecy, France and participates at the R&D meetings with the ARTRO Group. Although retired, he continues to accompany and help French surgeons in the operating theatre when they use the CORAIL Hip System.

**Dr Jean-Marc Semay**

Dr Jean-Marc Semay is a founding member of the ARTRO Group. He studied at the University of Lyon under Prof Georges de Mourgues, a French pioneer in Total Hip Arthroplasty. He also was under the tutelage of Prof Maurice Müller in Bern, Switzerland, a very well known global leader in Total Hip Arthroplasty in the 1970’s.

Dr Semay practiced Hip surgery for more than 30 years at the Clinique Mutualiste de Saint Etienne where he was highly interested in improving surgical techniques, developing new implants, and revision THA’s. He collaborated closely with the University of Lyon and contributed with the training of numerous young orthopaedic surgeons.

With the ARTRO Group, he was part of the conception and development of the CORAIL Hip System and continues to actively participate in research, training, and the education of hip prosthetic surgery. He is a member of multiple Orthopaedic Societies, both nationally and internationally.
Dr Alain Machenaud

Born in 1942 in Annecy, France, Dr Alain Machenaud completed his orthopaedic training in Lyon with Professors Albert Trillat and Georges of Mourgues. During this period Dr Machenaud had a passion for biomechanics and won the prize Antonin Poncet of experimental surgery in 1972. In July, 1974, he created the Orthopaedics Department of the clinic in Argonay.

Dr Machenaud began his surgical career in 1978 in the field of prosthetic without cement and torque of the ceramic-ceramic. As a member of the Artro Group since 1982, Dr Machenaud was heavily involved in revision surgery and the ‘live surgery’ operations at the Learning Centres from 1995 to 2007.

In July 1986 he established the first rod Corail on a patient with osteoporotic bone of 50 years, introducing a fracture of the neck of the femur.

Since Dr Machenaud’s retirement in July 2007, he continues to participate in the activities of the Artro design group and is mainly devoted to the management of the data bank of the group he created in 1987.
The ARTRO Group – The Final Thirteen
Prof Michel Fessy

Prof Michel Henri Fessy was born in Lyon, France in 1959. He fulfilled his internship at the Hôpitaux de Lyon, graduating in 1984 alongside his associate Dr Bonnin. As with other members of the ARTRO Group, his professional training was at the Orthopaedic School of Lyon and in particular with Dr Chatelet with whom he managed the clinic. All of these shared experiences have reinforced the friendship that unites the ARTRO Group.

Today, he is a Professor at the Surgical Universities of the Hôpitaux de Lyon and he oversees the Orthopaedic Trauma services (85 beds) of the Centre Hospitalier Lyon Sud at the Chu of Lyon. Prof Fessy’s surgical activity is exclusive to prosthetic surgery of the hip and he is one of the 100 founding members of the French Society of Hip and Knee for his surgical work.

Dr Michel Bonnin

Dr Michel Bonnin was born in Dijon in December 1960 and has been working in Private Practice in Lyon, France since 1993. His practice is exclusively Total Joint Replacements with more than 500 Hip or Knee arthroplasties each year. He trained in Lyon University with Dr Henri Dejour from 1985 to 1990 and completed his residency with Dr Cartillier, one of the CORAIL conceptors. During this time, he had the opportunity to participate in many of the first CORAIL implantations.

Over the years, Dr Bonnin has actively participated as a speaker in more than 250 conferences all over the world, written more than 60 book chapters and 30 publications in peer reviewed journals.

Dr Bonnin is currently the General Secretary of the French Hip and Knee Society and is involved in clinical and biomechanical research, with a special interest in patient evaluation and kinematics analysis.

Hopital Privé Jean Mermoz is one of the main Orthopaedic Hospitals in France, in terms of activity and professional education, with many visiting surgeons, international Fellows in training and an active Research Department.
**Dr Laurent Jacquot**

Dr Laurent Jacquot graduated from the Lyon School of Orthopaedics, is a member of the French Society of Orthopaedic Surgeons and of the French College of Orthopaedic Surgeons, and has been a member of the ARTRO Group since 2004. His training in Lyon was exclusively on hip and knee arthroplasty.

After living and working in the UK for one year, he began his practice in 2004 in Annecy with Doctors Vidalain and Machenaud, and eventually partnered with Dr Rollier in 2007, also an ARTRO Group member. His current activities are almost exclusively dedicated to arthroplasty surgery.

Dr Jacquot practices Total Hip Arthroplasty using the anterior approach on an orthopaedic table and with computer assisted surgery. He also performs knee surgery and revision surgery.

Throughout the year he participates in CORAIL educational meetings in Asia and in Latin America where he advocates the use of ceramic on ceramic for hip implants. With his practice partner Dr Rollier, he follows-up CORAIL clinical cases which date back more than 20 years, and manages a database of over 3000 cases. Dr Jacquot actively participates in the CORAIL Learning Centres in Annecy.

**Dr Tarik Aït Si Selmi**

One of the latest ARTRO Group members, Dr Tarik Aït Si Selmi excelled under the tutelage of Dr Cartillier. It was through this early education and training that Dr Selmi formed his own passionate belief in the CORAIL Stem. He was gratified when Dr Cartillier offered him a place within the ARTRO Group in 2004.

After a year vocation in Australia in 2008, Dr Aït Si Selmi returned to his beloved Lyon to establish a thriving Orthopaedic practice as part of the Centre Orthopédique Santy. Dr Aït Si Selmi continues to be an active member of the ARTRO Group by assisting with research and development as well as the worldwide professional education programmes. He remains particularly interested in orthopaedic innovation.

As a part of his practice, Dr Aït Si Selmi has a well-established CORAIL surgeon visitation centre and regularly hosts international visitors.
Dr Jean-Christophe Chatelet

Dr Jean-Christophe Chatelet is a member of the ARTRO Group. He has been practicing at the Polyclinique du Beaujolais, a private clinic located in the Lyon, France region, since 1999 when he succeeded Doctors Balaÿ and Setiey, two of the founding members of the ARTRO Group. He studied at the same school of surgery, Lyonnais, as the founding members of the ARTRO Group, and practices joint reconstruction surgeries exclusively (hip and knee).

The CORAIL Hip System has been used at the Polyclinique du Beaujolais since its creation in 1985, and therefore, Dr Chatelet possesses clinical data from thousands of cases, some of which have been followed for 25 years.

The CORAIL Hip System is most often used with ceramic on ceramic (PINNACLE® or SPIROFIT™ Cups) and in certain cases with navigation allowing for leg length and offset control.

Dr Jean-Charles Rollier

Dr Jean-Charles Rollier is the youngest member of the ARTRO Group.

In partnership with Dr Laurent Jacquot, they have both inherited from Doctors Vidalain and Machenaud a successful practice at the Clinique d’Argonay in Annecy, France. Dr Rollier performs primary Total Hip Arthroplasty, as well as revision surgery.

The region of Annecy lends itself to a very active and sports oriented population, which prompts a high number of degenerative problems in the young. Dr Rollier has always been interested in research and development and he has attained a Biomechanical Certificate and a DEA in tissue and medical engineering.

His interest in hip surgery appeared very early after contact with the ARTRO Group, who trained him during his University years in Lyon. He was immediately passionate with the creative and scientific side of this group.

Today, Dr Rollier contributes to perfecting the surgical techniques and the implants being used. He is involved in the patient follow-up and clinical evaluations from CORAIL cases which date back to more than 20 years. He also participates in communicating the development of non-cemented solutions on an International basis.
Given the rapid growth and adoption of the CORAIL Hip System and family of products worldwide, particularly in the last 10 years, there was recognition from the ARTRO Group that more diversity of skill to continue to drive excellence was required. In 2009, the CORAIL International Faculty was established to continue to set the standards in conjunction with the ARTRO Group for worldwide CORAIL education and training, ongoing research and development and relevant clinical studies.

Specifically, as the CORAIL Hip System evolves and continues to grow in use globally, education and training must remain standardised for best practice. Education and training includes consistent key messages and demonstrations about the stem philosophy, surgical principles and the lessons learnt from experienced users. The purpose of this consistent training is to ensure that the long-term survivorship and clinical results of the CORAIL Hip System are maintained to benefit patients.

The CORAIL International Faculty is also tasked with providing feedback and input regarding the CORAIL Hip System to ensure it carefully evolves to meet the needs of Orthopaedic Surgeons and an increasingly demanding, younger and more active, patient population. Although the CORAIL Hip System remains the central focus, there is also general acknowledgement within the Faculty regarding the importance of the acetabular component in relation to cup placement, geometry and tribology.

Overall, the CORAIL International Faculty has the following objectives:

1. Education and training regarding the CORAIL Hip System philosophy and surgical principles
2. Reinforce CORAIL key learnings to ensure ongoing efficiency and reproducibility
3. Ensure consistency of use that will maintain optimum clinical results
4. Share experience and lessons learnt associated with the CORAIL Hip System through clinical and scientific discussion
5. Connect CORAIL users throughout the world and enable a forum to share experiences with like-minded peers.

The selection criteria for the CORAIL International Faculty was, and remains, robust. Some of the factors taken into consideration were the level of surgical and presentation expertise, passion for excellence through education and training as well as providing different perspectives from a variety of markets. Although representatives from a number of countries, they are all fluent in English.
Absent: David Beverland, Sebastien Lustig, Paulo Almeida, Placido Zamora-Navos, Hans-Erik Henkus, Tom Hogervorst, Rudiger Eisenhart-Rothe, Vladimir Danilyak

CORAIL International Faculty
Prof David Beverland
Musgrave – Belfast, Ireland

Prof David Beverland is the lead consultant for primary joints at Musgrave Park Hospital, Belfast, Northern Ireland where he has been an Orthopaedic Surgeon for the past 20 years. During this time Prof Beverland has been instrumental in driving positive change. One notable accomplishment has been the creation and development of the Belfast Orthopaedic Information System (BOIS). Prof Beverland also established the BART Charity in 2001 which provides funding for a variety of research projects within his primary joint unit.

In 1988, Prof Beverland undertook the Sir John Charnley Hip Revision Fellowship at Wrightington Hospital in Manchester, United Kingdom. He also completed an Orthopaedic Trauma Fellowship with special interest in pelvic and acetabular surgery in 1989 at Sunnybrook Hospital, Toronto, Canada. This training and education was the beginning of future interests specifically in relation to correct cup placement and conservative surgery.

At present, there are over 1200 primary joints performed annually at Musgrave Park Hospital under the care of Prof Beverland. In order to manage this capacity, Prof Beverland has formed a skilled orthopaedic care team which is the largest single consultant primary joint unit in the United Kingdom. Prof Beverland has also been the senior author in over 60 publications with 26 of those published from 2005. He is also an accomplished presenter having given several hundred presentations on different aspects of hip and knee replacement.

Mr Tim Board
Manchester, United Kingdom

Mr Tim Board specialises in the treatment of complex hip problems and reconstructions. He commonly performs both arthroplasty and arthroscopy of the hip and uses a range of techniques for revision hip surgery including the use of bone graft and cemented components as well as the CORAIL Hip System.

Mr Board has a strong research interest and currently supervises a number of PhD and MD students in collaboration with the University of Manchester’s Bioengineering Department and the Tissue Regeneration Lab, where he holds an Honorary Senior Lecturer Position. He has presented over 110 papers at National and International Scientific meetings and published over 65 papers in scientific journals and written numerous book chapters. He is also a Research Advisor to the National Bone Bank and a Member of Editorial panel for the Journal of Bone and Joint Surgery.

Mr Board regularly lectures at international courses and meetings and is involved as a member of faculty on two MSc courses. Throughout his training he received numerous awards and scholarships including: ARC Grant (1992), Peter Mallimson Bursary (2003), Treloars/Gauvain Fellowship (2004), Sir Harry Platt Fellowship (2005), AO Fellowship (2006) and the British Hip Society European Fellowship (2007).
Dr Jens Boldt  
Bern, Switzerland

With a background in Biomedical Engineering, Dr Jens Boldt has been actively involved in scientific research since before establishing himself as an Orthopaedic Consultant in 2004. As a result, Dr Boldt has published and presented many scientific papers over the last 10 years. One particularly significant study was the radiographic analysis of 100 consecutive CORAIL patient X-Rays and the resulting published paper. These results remain significant to this day.

Having recently established an Orthopaedic Department in Bern, Switzerland, Dr Boldt continues to pursue his interests in radiographic analysis and other scientific work on joint reconstruction. As an active member of the CORAIL International Faculty his contribution in research and publication of clinical papers as well as books is invaluable.

Mr Scott Brumby  
Adelaide, Australia

Mr Scott Brumby is an orthopaedic surgeon at Wakefield Orthopaedic Clinic and operates at both Calvary Wakefield Hospital and Stirling District Hospital. He specialises in primary and revision hip and knee joint arthroplasty. Mr Brumby obtained his Orthopaedic Fellowship in 1999 after having completed a PhD in joint replacement research in 1997. Awarded the Marjorie Hopper Travelling Fellowship, the Mark Jolly Travelling Fellowship and the Johnson and Johnson Joint Replacement Fellowship he worked at several centres excelling in the treatment of arthritic disorders of the hip and knee in Switzerland, Sweden, UK and Harvard Medical School, USA.

Mr Brumby is a Clinical Lecturer at The University of Adelaide and has a strong interest in evidence based medicine. He is actively involved in reviewing data from the Australian Orthopaedic Association National Joint Replacement Registry and has been a member of the Arthroplasty Society of Australia surgeon review panel for the last 5 years. He is actively involved in arthroplasty education and surgical training within Asia Pacific and Internationally.
Dr Dominique Hardy
Belgium

Dr Dominique Hardy successfully completed his medicine training at the Free University of Brussels in 1982. He then went on to specialise in the field of orthopaedic and biomechanical training which he concluded in 1988.

In 1987 Dr Hardy was responsible for the hip trauma unit and pioneered the implantation of Corail in femoral neck fracture patients. As a result of this activity, Dr Hardy was the first user of Corail in Belgium. In 1988, he started a pilot study combining clinical evaluation, radiological assessment and retrieval of explants during systemic autopsies. A key output from this in-depth research was the creation of an original histological-microradiological process which was aimed at understanding the osteointegration process and the subsequent behavior of hydroxyapatite coatings during the years following successful implantation. These investigations were performed in association with Professor Frayssinet, at the University of Toulouse Rangueil and in many different research units in the world.

Following this research there have been multiple papers written, a PhD theses and several communications and posters have been published which has led to a solid database of activity around this subject.

Dr Hardy is an active member of the CORAIL International Faculty and regularly presents on HA Histology at the learning centres; his knowledge, research commitment and enthusiasm to this topic is invaluable.

Dr Hans-Erik Henkus
The Netherlands

Dr Hans-Erik Henkus studied medicine at the University of Amsterdam. Before orthopaedic training he completed a tropical health residency consisting mainly of general surgery and obstetrics. However, because of a growing passion for orthopaedics he changed career and started orthopaedic training in 1997 at the Leiden University Hospital and various teaching hospitals. Since 2003, Dr Henkus has worked at the HAGA teaching hospital in The Hague.

Dr Henkus’s field is (revision) hip and knee surgery, mainly focussed on arthroplasty. Dr Henkus started using the anterior intermuscular approach for total hip arthroplasty in 2006 and will now perform about 1200 hip and knee arthroplasties each year.

Dr Henkus started using the CORAIL Hip System in 2003 as he believes it is a gentle prosthesis that conserves bone and can be used in an intermuscular anterior approach. Its good modularity makes it possible to use the system in a wide range of patients and it has an excellent track record.

Since 2010, the HAGA hospital is an international visitation centre for the anterior intermuscular approach using the CORAIL Hip System.
Dr Tom Hogervorst
The Netherlands

Dr Tom Hogervorst studied biology briefly in Leiden before attending medical school in Amsterdam. Somehow his interest for biology never went, and in recent years he studied evolution of the pelvis and hip. He trained in Amsterdam as an orthopaedic surgeon, and did a PhD fellowship in Canada. This led him to consider research important, inspiring and fun.

Dr Hogervorst works with Dr Hans-Erik Henkus in an orthopaedic group of 10 in the Hague, Netherlands. Together, they also initiate and support research in clinical orthopaedics, for example through PhD projects, but also practical R&D to improve their clients’ well-being.

Dr Hogervorst has specialised as hip and knee surgeon since 2003, the year he also started using CORAIL. His fascination in orthopaedics is that real progress can still come from anatomy. A perfect example is the Direct Anterior Approach to the hip, which he has used since 2006. The DAA makes a client-centred approach to arthroplasty a reality. The CORAIL-PINNACLE hip system is important in this approach, because of its proven track record, suitability to DAA and ample options for reconstruction of biomechanics. Dr Hogervorst is fluent in English, French, German and Spanish.

Dr Robert Kipping
Germany

Dr Robert Kipping is head of the department of endoprosthesis at Wolfartklinik in München-Gräfelfing. Hip and knee surgery with extensive joint replacement has been performed there since the beginning at 1995. Approximately 700 endoprosthetic surgeries are performed annually by Dr Kipping and his team. Over the last 25 years, Dr Kipping has personally performed more than 7000 joint replacements.

Since 2004, the minimally invasive Yale-technique has been utilised to reduce the tissue trauma during the hip replacement procedure. Almost all replacements are performed using the PINNACLE cup and the CORAIL Hip System (uncemented and cemented). Since 2010, the Brainlab navigation system has also been used to more accurately restore leg length and off-set. Dr Kipping has published various clinical papers and presented at major meetings regarding hip replacement and its improvement specifically in relation to these techniques.
Dr Markus Michel
Bern, Switzerland

Dr Markus Michel successfully completed his orthopaedic and biomechanical training at the University of Bern under the auspices of Dr Maurice E. Muller in 1988 before leaving for Boston where he worked at the Harvard Medical School with Prof Wilson C. Hayes. During this time he published various biomechanical articles.

After his return back to Switzerland he broadened and deepened his professional knowledge and experience in hip surgery in the Orthopaedic Department under the leadership of Prof Reinhold Ganz, again at the University of Bern. His enthusiasm for hip surgery prompted the publication of the first tissue sparing Direct Anterior Approach (DAA) without traction table in 2005, known as the MICROHIP™ approach. His high level of biomechanical knowledge became very helpful for his development of an open technique for a modern soft tissue sparing hip surgery. In the meantime, thousands of patients have undergone this method of treatment benefitting from this innovative technique and new surgeons get trained continuously for the purpose of applying this modern and less invasive technique.

Today Dr Michel is leading director of the Orthopaedic Department at the Hospital in Münsingen, a clinic nearby Bern where he built up an extremely busy International MICROHIP/CORAIL Surgeon Visitation Centre. His MICROHIP operating method has become a very popular procedure all over the world.

Dr Sebastein Lustig
Lyon, France

Dr Sebastein Lustig began the study of medicine at the University of Nancy in 1996, graduating in 2001 when he started performing Orthopaedic surgery, becoming specialized five years later. During this period he had the opportunity to work 6 months with Dr Cartillier, who taught the principles of the CORAIL Hip System. Dr Lustig also worked with Dr Aït Si Selmi for 4 years at the Hôpital Universitaire de la Croix Rousse in Lyon, using the CORAIL Hip System in primary and revision surgery.

In 2004, Dr Lustig studied the clinical results of the CORAIL prosthesis inserted via mini-posterior approach with a specialised tool and the results of this study were published in 2006. In conjunction with some colleagues, Dr Lustig reported results on a radiological study of the anatomical restitution using the CORAIL Hip System in 2008. Presently, Dr Lustig is working on a prospective CT scan study on 100 CORAIL cases to assess the restitution of the proximal hip anatomy when using the CORAIL Hip System. The results of this study will be presented at the next EFORT congress, and publication is scheduled for 2012.

Dr Lustig is now an Associate Professor at the Lyon Nord University hospital and works mainly with hip and knee arthroplasty surgery, both primary and revision. The CORAIL Hip System has been used in his hospital since 2001.
In 2002, Dr Remi Philippot began his experience in orthopaedics with Prof Fessy in St Etienne. After completing a medical thesis in 2005, Dr Philippot obtained a post graduate diploma in biomechanic study. He has since produced many publications about hip arthroplasty and knee surgery. Moreover, Dr Philippot participates in national and international orthopaedic congresses and symposia on a regular basis. He is also a member of the French orthopaedic and French foot surgery societies.

In 2010, Dr Philippot obtained his PhD in biomechanic sciences and yet Hip Arthroplasty remains one of his favourite fields. He still finds this vocation very fulfilling particularly when restoring mobility to patients without pain. Dr Philippot first saw the CORAIL Hip System in practice with Prof Fessy and thought that the surgery appeared very straightforward. His first experience of the CORAIL stem through implantation was also very natural and today he still has the same feeling. Dr Philippot has been using the CORAIL stem from the beginning; therefore he doesn’t consider the prosthesis as a discovery but as an educational principle.

Dr Philippot believes that as a young surgeon involved in the CORAIL International Faculty, his place is in the education and training of other young surgeons.

Dr Emilio Romanini
Rome, Italy

Dr Emilio Romanini is an orthopaedic surgeon specialising in the treatment of degenerative hip and knee disorders. He currently performs surgical activity at San Feliciano Clinic (Rome, Italy), after professional experiences in both Italy and the UK.

In 1997, Dr Romanini founded the Italian Working Group on Evidence-Based Orthopaedics and since then his research activity has mainly been dedicated to projects in the area of guidelines development, health technology assessment and patient reported outcomes.

Dr Romanini has co-authored 6 monographs, many book chapters and over 90 papers in peer reviewed journals. He is currently a member of the Scientific Board of the Italian Joint Replacement Registry, a lecturer on Total Hip Arthroplasty at the University of L’Aquila and a member of the CORAIL International Faculty. Dr Romanini has been using the CORAIL stem as his first choice solution in primary cases since 2008.
Mr Steve Young  
Warwick, UK

Mr Steve Young has been an orthopaedic consultant at Warwick Hospital since 1988. He specialised in hip and knee arthroplasty but over the years he has developed an almost exclusive hip practice. Mr Young performs primary and revision hip arthroplasties. On average, he carries out over 300 primary joints and 30 revision hip arthroplasties each year.

Since 2002, Mr Young has been using the CORAIL stem as his first choice hip implant. He embraces the CORAIL surgical philosophy of conservative Total Hip Arthroplasty and will use the CORAIL stem for all patient pathologies including complex primaries and revisions. He actively encourages the use of a patient algorithm to determine the best bearing combination dependent on age, morphology and activity level.

Over the years, Mr Young has regularly presented on hip arthroplasty at various meetings and congresses. He has a specific interest in Hospital Management Solutions. He has worked with other clinical staff and Managers at Warwick Hospital to implement an effective programme that allows the safe early discharge of post hip replacement patients. This not only has reduced the length of stay for patients but also has reduced hospital costs dramatically.

Mr Young has also been instrumental in establishing the foremost cementless stem education and training programme in the United Kingdom for Orthopaedic Registrars.

Dr Helge Wangen  
Oslo, Norway

Dr Helge Wangen was born in Oslo, graduated from high school in 1987 and started to study medicine at the University of Oslo in 1990. Dr Wangen graduated in 1996 and then for 18 months (1996-98), worked as an intern in Northern Norway. In 1998 commenced in orthopaedic surgery and graduated as specialist six years later. During this period, Dr Wangen worked for approximately 5 years in the Orthopaedic Department, Sykehuset Innlandet Hospital Trust and about 2 years in Orthopaedic Department, University Hospital of Oslo.

Together with colleagues in Oslo, Dr Wangen published an article in 2007 about the CORAIL Hip System focusing on the results of patients below 30 years of age. He is currently conducting a prospective study on 150 reversed hybrids using the CORAIL Hip System and a cemented Elite cup with 10 years follow up. Publication is scheduled to 2012.

Dr Wangen’s practice generally consists of hip and knee surgery, both, primaries and revisions. The CORAIL Hip System has been available within Dr Wangen’s hospital since 1988, and he has been working with the CORAIL Hip System since commencing as an orthopaedic surgeon in 1998.

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CORAIL Silver Instrument Kit Surgeon Evaluators

Left to Right: Dr Michel Bonnin, Mr Steve Young, Dr Jean-Christophe Chatelet, Prof Michel Fessy, Dr Markus Michel, Dr Jean-Charles Rollier, Dr Laurent Jacquot, Dr Tarik Aït Si Selmi, Prof David Beverland

The Silver Instrument Set has been developed in conjunction with the Surgeon Evaluators and care was taken to consider feedback that has been received over the years.

This enhanced instrument set will become available during 2013.
The CORAIL Hip System, one of the first to use hydroxyapatite, was developed in 1986 as an innovative solution for hip arthroplasty. It has since evolved to become one of the most used hip systems across the world, with more than 110,000 patients benefiting from the treatment each year. This book is designed as a practical manual that will serve both as a reference for surgeons training on the system and as a source of information, tips, and tricks for the more experienced who wish to learn from the cases of other surgeons. The book is divided into three main parts. The first part discusses everything that is practical about the system, including the basic science, surgical technique, treatment of complications, and the results achieved in large cohorts of patients. A full discussion of revision arthroplasty using the CORAIL family of stems is also included. The second part is devoted to the important issues of surgical approach, bearing options, acetabular preparation and, cup orientation and fixation. The final part focuses on the management of the patient prior to and after surgery. Health economic implications of using the CORAIL Hip System are reviewed, and a collection of standard and complex clinical cases is provided to which surgeons can refer when planning surgery. The book closes by examining the next 25 years for the CORAIL Hip System including the future in developing countries.

Left to Right: Prof David Beverland, Dr Tarik Ait Si Selmi, Mr Steve Young, Dr Jens Boldt, Dr Jean-Pierre Vidalain, Mr Scott Brumby, Mr Tim Board

The CORAIL Hip System: A Practical Approach Based on 25 Years of Experience, available to order now. Catalogue No. 9066-00-104
CORAIL Surgeon Visitation Centres

Conducted by experienced CORAIL design surgeons as well as experienced CORAIL Hip System users, these Surgeon Visitation Centres enable a visiting Orthopaedic Surgeon to see multiple CORAIL Total Hip Arthroplasty (THA). These centres can cater for between 1 and 4 visitors at any given time. In most instances, the number of observers in theatre should not exceed 2. However, this is at the discretion of the educating surgeon.

It is advisable that a potential visitor has participated in a local CORAIL educational event, a CORAIL Learning Centre or trialled the CORAIL Hip System prior to a visitation. The visitation may then be utilised to address any outstanding questions.

Ideally, the visitor should arrive at the specified time prepared with these outstanding queries or provide them to the centre prior to the visit. In addition, the Surgeon Educator should be provided with the visiting Surgeon’s resume as well as a description of current technique and implant use. This assists the Surgeon Educator to pitch the session according to skill level so that expectations are met or exceeded.

Under most circumstances, the session will commence with an introduction followed by a brief overview of the CORAIL Hip System and family of products. Pre-operative planning with templating is then undertaken followed by the surgery itself. Once the list of CORAIL cases is complete, the session will also conclude. It is mandatory that a market representative accompanies the visitor to the Surgeon Visitation Centre to ensure the introduction through to conclusion is conducted smoothly for all participants.

For further information regarding these visitation centres, please liaise with your local DePuy Synthes Product Specialist.

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References


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