O.A.S.I. BIORESEARCH FOUNDATION NEWSLETTER N°10

Spring is in the air…..! Time to update you all on what Doc and the Foundation have been up to over the last couple of months!

New treatments, studies & publications……..

Sub chondroplasty or intra articular injections with Bone Marrow Concentrate is a procedure that Dr Gobbi has started to use in his practice to treat early arthritis or bone cyst formation. It involves a bone marrow aspirate taken from the iliac crest which is then concentrated and injected into the affected area to help promote healing. Along with PRP and Lipogems we are now evaluating the benefits of this third treatment. Further information on treatments offered by Dr Gobbi can be found on our website www.kneecartilagedoctor.it

*The Foundation continues with it's study on "**Comparison between PRP standard and Cellular Matrix for chondropathy and early OA: a prospective randomized study (25 + 25 pts) FUP 1Y"** and also **"Comparison between PRP and LIPOGEMS. 20 vs 20 patients (1Y F-UP- preliminary results)"** We are still waiting for funding to start the important study looking at cost/benefit analysis, "Tissue engineering techniques for cartilage repair. One or two step surgery: impact on social costs and savings analysis"*

*Dr Gobbi has also been invited to contribute a chapter to the book **" Lower Extremity Joint Preservation - Techniques for Treating the Hip, Knee, and Ankle"** Ed. Dr. Brittberg and Dr. Slynarski*

*Below is Dr Caplan, (on the right) a pioneer in orthopedic surgery. Their collaboration is fundamental for combining basic science with clinical experience. He is a big fan of Dr Gobbi's work and wrote a wonderful introductory commentary for Doc's book **"Bio-orthopaedics: A new approach"**. In fact he has also recommended Doc to several of his patients in the US were the HA-BMAC procedure is not available yet! In fact Doc is involved in the FastTrack study as Principal Investigator for FDA approval of Hyalofast, the scaffold which he uses in his HA-BMAC (hyaluronic acid and bone marrow aspirate concentrate) procedure for cartilage repair. For more information on this technique please visit our website on www.kneecartilagedoctor.it.*



Dr Gobbi, Barbara Kruscioff & Arnold Caplan

A few satisfied patients from the US



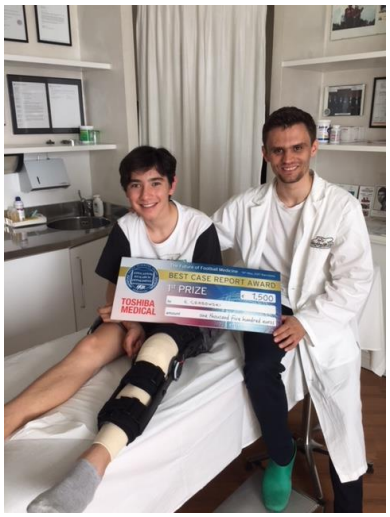
Lina, Dr Gobbi & Frannie



Dr Gobbi & Morgan

The Brothers!!!

Fortunately, Dr Gobbi is also very popular here in Italy too especially amongst young sports campions!



Francesco with Radek (our Fellow)



Dr Gobbi with Alessandro

ISMF, January, Carlsbad

Dr Gobbi's annual visit to Carlsbad and the fellows meeting. The International Sports Medicine Fellows Conference is a unique opportunity for fellows to learn the latest advancements in articular cartilage treatment, restoration and repair while participating in the largest gathering of 2017-2018 orthopaedic sports medicine fellows. A good chance to meet up with old friends and make new ones while exchanging expertise! A chance to learn and exchange critical information regarding new techniques and studies.

At this meeting Dr Gobbi presented ***"Stem cells & scaffolds"*** *Stem cells are considered to be undifferentiated precursor cells that have potential for self-renewal and are capable of differentiating into a wide variety of cell types. Mesenchymal stem cells (MSCs) have been defined as a precursor cell that differentiates into mature cell types within tissues such as bone, cartilage, muscle, marrow, and adipose tissue. Recent findings have suggested that MSCs are a type of perivascular cell named "pericytes". These cells are found in close proximity to blood vessels, in varying concentrations, depending on tissue type. For clinical purposes, these cells are obtained most frequently from bone marrow or adipose tissue, and have been applied in practice to treat a range of pathologies, including treatment of chondropathy and an array of tendon or ligamentous injuries.*

Chondral injuries have limited potential for healing, and are an inciting cause of progressive arthropathy, leading to functional limitation and disability. In addition to the use of MSCs in injectable form, MSCs sourced from bone marrow aspirate concentrate have been used in conjunction with biologic scaffolding to successfully treat areas of focal cartilage injury within the knee. Combining cell-based biologic treatments with biologic scaffolding may also be performed as a single-stage procedure, reducing resource utilization and minimizing patient surgical exposure.



From the left: Dr Gobbi, Michele Johnson & Dr Joao Espreguira Mendes



Dr Gobbi & the ISMF group



A big ISAKOS Welcome!

<u>AAOS 6th-10th March, New Orleans</u>

*AAOS allows for the sharing of knowledge with orthopaedic surgeons from around the world. Nowhere else will new discoveries reach such a wide-ranging orthopaedic audience. Dr Gobbi presented on "**Evolving Technique-BMAC and Hyaluronic Acid Scaffold"** and **"Two Stage vs One stage Cartilage Repair procedure"** An interesting congress, working but also a little bit of time to enjoy. One of Dr. Gobbi's great passions is teaching and in New Orleans he taught the most recent cartilage repair techniques.*







Dr Gobbi meets with 2 of his old fellows, Dr Ramces & Dr Sandoval

<u>Masters Knee Symposium, Seoul South Korea 24th-25th March</u>

*This symposium is a practical clinic-accessible masters and clinical knowledge update in knee, ligament, cartilage & meniscus lesions were the most prestigious domestic and foreign professors are invited to participate. A short but very worthwhile trip to South Korea. Dr Gobbi presented our research on HA-BMAC, **"One-Stage Cartilage Repair Using a Hyaluronic Acid–Based Scaffold with Activated Bone Marrow–Derived mesenchymal stem cells compared with microfracture: Five-Year Follow-up" Background**: Articular cartilage injury is frequently encountered, yet treatment options capable of providing durable cartilage repair are limited. The purpose of the study was to investigate the medium-term clinical outcomes of cartilage repair using a 1-stage technique of a hyaluronic acid–based scaffold with activated bone marrow aspirate concentrate (HA-BMAC) and compare results with those of microfracture. A secondary aim of this study was to identify specific patient demographic factors and cartilage lesion characteristics that are associated with superior outcomes. This treatment is now starting to be used as a treatment option in South Korea.*







Dr Gobbi & Dr Kim

Past, present & future ICRS President's Prof Kim, Dr Kon, Dr Gobbi & Dr Nakamura

Staff update!

At the end of January we said goodbye to AJ (Dr Desale our fellow from India) he had to return home due to illness. However, he is now fine and back in good health!

We also said a heart felt goodbye to Scilla De Alessi who has been here for 15 years and wish her all the best in the future. Welcome to Veronica Di Ceglia who will try to step into Scilla's shoes…..a difficult task but I am sure she is up to it! In January Patrizia Tedeschi joined the team, she works in close contact with Dr Gobbi and we are very happy to have her with us. In April we will welcome Dr Herman from Poland who will stay with us for 4 months.

Coming up….

At the beginning of April there is the ICRS World Summit in Macau where Dr. Gobbi will become President of the Society.

Our future in your hands

We are asking you to support these important initiatives by making a donation today. There are three ways to give:

1 *Donate to the O.A.S.I. BioResearch Foundation, which supports research studies and publications. The operating budget for 2018 is €100,000 and any contribution however small is very useful.*

2 *Donate for a specific program; our Fellowship program gives the opportunity to young doctors from around the world to come to O.A.S.I. to learn new techniques and improve exsisting skills. The budget for each six month fellowship program is €15,000*

3 *Create an endowment, which ensures that our work can continue for years to come. We are currently seeking funds for the ongoing research and education missions of the Foundation.*

Will you help solve cartilage, joint injuries and arthritis?

