



## Final Program 10<sup>th</sup> Biometal 2018

	Sunday, August 26	Monday, August 27	Tuesday, August 28	Wednesday, August 29	Thursday, August 30	Friday, August 31
07:00						
07:30		7.30 – 8.30 Breakfast	7.30 – 8.30 Breakfast	7.30 – 9.00 Breakfast	7.30 – 9.00 Breakfast	7.30 – 8.30 Breakfast
08:00						
08:30		8.30 – 13.00 Workshop Session I	8.30 – 13.00 Session 1 Metals	9.00 – 13.15 Session 3 Corrosion	9.00 – 13.00 Session 4 In vitro	From 8:30 Departure
09:00						
09:30						
10:00						
10:30						
11:00						
11:30						
12:00						
12:30						
13:00		13.00 – 16.00 Lunch and free time	13.00 – 16.00 Lunch and free time	13.15 – 19.00 Lunch and excursion	13.00 – 16.15 Lunch and free time	
13:30						
14:00						
14:30						
15:00						
15:30						
16:00	16.00-19.00 Registration (St. Catherine College)	16.00 – 19.00 Workshop Session II	16.00 – 19.00 Session 2 Metals		16.15 – 19.00 Session 5 In vivo	
16:30						
17:00						
17:30						
18:00						
18:30						
19:00	19.00-20.30 Dinner	19.00-20.30 Dinner	19.00-20.30 Dinner	19.00-20.30 Dinner	19.00-23.00 Conference dinner	
19:30						
20:00						
20:30			20.30-23.00 Poster session			
21:00						
21:30						
22:00						
22:30						



## VENUE

**St. Catherine's College**, Manor Road, Oxford, OX1 3UJ, United Kingdom.

**For urgency only: Diego Mantovani cell phone: +1-418-717-0828 (Whatsapp, viber, messenger, audio and FaceTime equipped)**

We suggest you to plan your flight/travel so to arrive in Oxford **Sunday August 26, 2018**.

**Additional nights.** Should you require additional nights, we will book it for you.

Please contact Bruno (Bruno.Begin@conferium.com) by email once registered.

## TRAVEL INFO

### From London airports

We recommend to land either at London Heathrow or London Gatwick airports, which are respectively 75 Km and 130 Km from the symposium venue. Both airports are served by many air carriers.

#### A) BY BUS TRANSFER

There are direct and regular services to Oxford from Heathrow and Gatwick airports operated by the [Oxford Bus Company](#). **Please note that no shuttle service will be offered by the organizing committee.**

#### B) BY TRAIN

There is regular service from both [Heathrow](#) and [Gatwick](#) airports to Oxford. However, please note that no direct links are available. At least one change is mandatory to reach Oxford from both airports.

#### C) BY CAR

Detailed information for drivers can be found [here](#). **Please note that St. Catherine College cannot provide any parking facilities.**



## From downtown London

### A) BY BUS

Both the [Oxford Bus Company](#) and [Oxford tube](#) offer direct bus services from London to Oxford.

### B) BY TRAIN

Direct trains connect London with Oxford. More details can be found [here](#).

### C) BY CAR

The same information concerning driving from the airports are valid.

## INSTRUCTIONS FOR PRESENTERS

**PRESENTATIONS:** All oral communications will be on Power-Point. A computer, audiovisual equipment (microphone, laser-point, etc.) and projector will be available to presenters. **Keynote (K) and Oral (O) presenters will dispose of 30 (including at least 5 min questions/discussions) and 15 minutes (including 3 minutes questions/discussions) respectively. Short-Oral/Poster (SOP) presenters are invited to present 5 slides (uploaded in advance!) in 5 minutes (strict!) during oral session, AND MUST display a poster for continuing discussions with interested colleagues.** Posters will be displayed all along the conference, and delegates can access posters at any time. SOP and Poster presenters can find their assigned poster number in the Poster section at the end of this program. Oral presenters or other attendees are also invited to bring a poster without prior notice and display it to poster discussions, exchanges and share their interests and expertise.



## Scientific Program 10<sup>th</sup> Biometal 2018

**Sunday, August 26<sup>th</sup>, 2018**

Registration and Dinner

16h00 Registrations (St Catherine College)

19h00 Dinner

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**Monday, August 27<sup>th</sup>, 2018**

**Workshop**

### Current Status and Outlook on the Clinical translation of Biodegradable Metals

**Session I**

**Chairs: Frank Witte, Diego Mantovani**

Time	Title	Presenter
<b>08.30-08.45</b>	<b>Welcome to the workshop Session I</b>	
08.45-09.20	The History, Present and Future of the Biodegradable Metal Conference	D. Mantovani, F. Witte
09.20-09.55	View point. Editors - Publishing on Biodegradable Metals	Acta Biomaterialia, Material Science And Engineering Part B, European Cells and Materials, Bioactive Materials
<b>09.55-10.30</b>	<b>Coffee Break</b>	
10.30-11.05	View point. Industrials - Development of Biodegradable Metal Products	Industrial participants from past conferences, to be announced.
11.05-11.40	View Point. Clinicians – Implanting Biodegradable Metals	Clinician participants from past conferences, to be announced.
11.40-12.15	View Point. Scientists and students – Learning Lessons on Biodegradable Metals	Scientists and students participants from past conferences, to be announced.
<b>12.15-12.50</b>	<b>Questions period to all speakers</b>	
<b>13.00-16.00</b>	<b>Lunch and free time</b>	



Monday, August 27<sup>th</sup>, 2018  
Workshop

## Current Status and Outlook on the Clinical Translation of Biodegradable Metals

### Session II

Chairs: Hyungseop Han, Yufeng Zheng

Time	Title	Presenter
16.00-16.15	<b>Welcome to the workshop Session II</b>	
16.15-17.00	Whatever happened to my genes?	Prof. Denis Noble, Emeritus Professor of Cardiovascular Physiology <i>Department of Physiology, Anatomy and Genetics, University of Oxford, UK</i>
17.00-17.10		Questions
17.10-17.30	<b>Coffee Break</b>	
17.30-18.15	In situ three – dimensional study of short fatigue cracks in a Magnesium alloy	Prof. James Marrow, Professor of Energy Materials <i>Department of Materials, University of Oxford, UK</i>
18.15-18.25		Questions
18.25-18.50	<b>Workshop Sum up and Conclusions</b>	
19.00-20.30	<b>Dinner</b>	



Tuesday, August 28<sup>th</sup>, 2018

Session 1 – Metals

Chairs: Regina Willumeit-Römer & Vesselin Shanov

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
8.30-8.45		<b>Introductory remarks (DM, FW)</b>		
8.45-9.15	K1	Modelling and Simulation in Materials Engineering	<u>Norbert Hort</u> , D. Höche, H. Dieringa, P. Maier <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Met-1
9.15-9.30	O1	Suitability of as extruded Mg-Gd-0.5Mn for biomedical applications	<u>Jochen Harmuth</u> , B. Wiese, J. Bohlen, T. Ebel, R. Willumeit-Römer <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Met-2
9.30-9.45	O2	Densification and Microstructure of spark-plasma sintered WE43 powder	<u>Julie Soderlind</u> , R. Schaeublin, M. Cihova, S. Risbud, T. Yong-Jin Han, J. F. Löffler <i>University of California at Davis, USA</i>	Met-3
9.45-10.00	O3	Strengthening of a biodegradable lean Mg-Zn-Ca alloy by Equal Channel Angular Pressing	<u>Jelena Horky</u> , K. Bryla, M. Krystian, B. Mingler, L. Sajti <i>Austrian Institute of Technology, Austria</i>	Met-4
10.00-10.05	SOP1	About the precipitates' structure in MgZnCa-lean alloys	<u>Robin Schaeublin</u> , M. Cihova, S. Gerstl, D. Deiana, J. F. Löffler <i>ETH Zürich, Switzerland</i>	Met-5
10.05-10.10	SOP2	On the degradation of binary Mg alloys with an ultra-low content of Ca and Zn under simulated physiological conditions	<u>Mariano Casas Luna</u> , E. Montufar, L. Celko, M. Horynová, L. Klakurková, N. Hort <i>Central European Institute of Technology, Czech Republic</i>	Met-6
10.10-10.15	SOP3	Microstructure and mechanical properties of Mg – RE biomaterials processed by rotary swaging	<u>Francesco D'Elia</u> , P. Hiester, A. Kopp, C. Ptock <i>Meotec, Germany</i>	Met-7
10.15-10.25		<b>General discussion of SOP</b>		
10.25-10.40		<b>Conference Photo (details and meeting point will be provided during the introductory remarks)</b>		
10.40-11.00		<b>Healthy Break</b>		
11.00-11.15	O4	Biodegradable implants: Fe-Mn-Ag alloy for bone regeneration scaffolds	<u>Joseph Buhagiar</u> , C. Tonna, B. Mallia <i>University of Malta, Malta</i>	Met-8
11.15-11.30	O5	Ag-alloyed degradable twinning-induced plasticity steel for improving the corrosion behaviour	<u>Sergio Loffredo</u> , C. Paternoster, N. Giguère, M. Vedani, D. Mantovani <i>Laval University, Canada</i>	Met-9



Tuesday, August 28<sup>th</sup>, 2018

Session 1 – Metals

Chairs: Regina Willumeit-Römer & Vesselin Shanov

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
11.30-11.35	SOP4	Micro-alloying of Mg-Zn based alloys Influence on corrosion behavior	<u>Yiming Jin</u> , B. Wiese, F. Feyerabend, C. Blawert, J. Bohlen, R. Willumeit-Römer <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Met-10
11.35-11.40	SOP5	In vitro degradation behaviour of biodegradable Mg alloy wires/Polylactic acid composite used for orthopedic implants	<u>Hong Cai</u> , F. Xue, C. L. Chu, J. Meng, Y. Zhang, J. Bai <i>Southeast University, China</i>	Met-11
11.40-11.45	SOP6	Development of novel chill cast Zn-based alloys for degradable paediatric stent applications	<u>Ana Ramirez-Ledesma</u> , D. Mantovani, M. Vedani <i>Laval University, Canada</i>	Met-12
11.45-11.50	SOP7	Fabricating bio-scaffolds by coating hydroxyapatite on metallic 3D woven lattices	<u>Ju Xue</u> , T. Weihs, J. Guest, S. Hall, W. Grayson <i>Johns Hopkins University, USA</i>	Met-13
<b>11.50-12.00</b>	<b>General discussion of SOP</b>			
12.00-12.15	O6	Microstructural and biocorrosion characterization of Mg-Nd alloys	<u>Yaping Zhang</u> , Y. Huang, C. Blawert, F. Feyerabend, W. Gan, Y. Xu, K. Kainer, N. Hort <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Met-14
12.15-12.30	O7	Development of novel biodegradable surgical Zn-Ag-Mg staple	<u>Ana Ramirez-Ledesma</u> , M. Vedani, D. Mantovani <i>Laval University, Canada</i>	Met-15
12.30-12.45	O8	Study on the in vitro properties of Mg-alloy stent using AZ31 and WE43 wire for benign biliary stricture	<u>Bong Seok Jang</u> , D. Im, W. H. Park <i>Chungnam National University, Republic of Korea</i>	Met-17
<b>13.00-16.00</b>	<b>Lunch and free time</b>			



Tuesday, August 28<sup>th</sup>, 2018

Session 2 – Metals

Chairs: Petra Maier & José González-Carrasco

*Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.*

Time	Code	Title	Authors	Page
16.00-16.30	K2	Progress in Absorbable Wire Technology	<u>Adam Griebel</u> , J. Schaffer Fort Wayne Metals, USA	Met-18
16.30-16.45	O9	Design and testing of zinc stent fabricated by photo-chemical etching	<u>Vesselin Shanov</u> , B. S. P. K. Kandala, G. Zhang, S. Pixley, T. M. Hopkins, X. An University of Cincinnati, USA	Met-19
16.45-17.00	O10	Heat treatment of Mg1-xAgx thin films to achieve supersaturated alloys	<u>Lea Jessen</u> , C. Zamponi, E. Quandt Kiel University, Germany	Met-20
17.00-17.15	O11	Microstructure of WE43 fabricated by Laser-Powder Bed Fusion in comparison to conventional processing routes	<u>Leopold Berger</u> , F. Bär, L. Jauer, R. Schäublin, J. Schleifenbaum, J. F. Löffler ETH Zürich, Switzerland	Met-21
17.15-17.20	SOP8	Combining the best of both worlds: partly degradable permanent implants	<u>Thomas Ebel</u> , J. G. Schaper, V. Haramus, S. Bußacker Helmholtz-Zentrum Geesthacht, Germany	Met-22
17.20-17.25	SOP9	Study on degradable magnesium alloys for bone screws	<u>Zhentao Yu</u> , C. Wang Northwest Institute for Nonferrous Metal Research, China	Met-23
17.25-17.30	SOP10	Tailored degradation and improved biocompatibility of magnesium alloys for resorbable bone fixation products	<u>Jonathan Acheson</u> , N. Fullen, Z. Xu, A. Roy, S. McKillop, P. Lemoine, A. Boyd, B. Meenan Ulster University, UK	Met-24
17.30-17.40	<b>General discussion of SOP</b>			
17.40-18.10	<b>Healthy break</b>			





Tuesday, August 28<sup>th</sup>, 2018

Session 2 – Metals

Chairs: Petra Maier & José González-Carrasco

*Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.*

Time	Code	Title	Presenter	Page
18.10-18.25	O12	Process Chain for Additive Manufacturing of Magnesium Implants	<u>Lucas Jauer</u> , M. Kimm, N. Labude, M. Bienert, S. Neuß, B. Lethaus, F. D'Elia, M. Müther, A. Kopp, C. Ptock, J. Schleifenbaum <i>Fraunhofer Institute for Laser Technology, Germany</i>	Met-25
18.25-18.40	O13	Biodegradable Zn metal implants manufactured by laser powder bed fusion	<u>Yu Qin</u> , P. Wen, Y. Chen, L. Jauer, M. Voshage, R. Poprawe, J. H. Schleifenbaum <i>Tsinghua University, China</i>	Met-26
19.00-20.30	<b>Dinner</b>			
20.30-23.00	<b>Poster session.</b> <b>Co-chairs (more details onsite):</b> <b>Petra Maier (acting coordinator), Alberto Coda, Annelie Weinberg, Ke Yang, Monica Fernandez, Hyun Kwang Seok, Frank Feyerabend, Marcela Lieblich.</b>			



Wednesday, August 29<sup>th</sup>, 2018

Session 3 – Corrosion

Chairs: Carla Vogt & Guangyin Yuan

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
9.00-9.30	K3	Microstructure-biocorrosion correlation of MgZnCa-lean alloys with varying Zn content	<u>Martina Cihova</u> , E. Martinelli, R. Schäublin, A. Weinberg, P. Schmutz, P. J. Uggowitzer, J. F. Löffler <i>ETH Zürich, Switzerland</i>	Cor-1
9.30-9.45	O14	Dual-functional biomimetic surface nanocoating strategy for biodegradable magnesium vascular stents	<u>Jia Pei</u> , F. Yuan, J. Tan, Y. Shi, G. Yuan <i>Shanghai Jiao Tong University, China</i>	Cor-2
9.45-10.00	O15	Corrosion fatigue behaviour of additively manufactured porous magnesium	<u>Yageng Li</u> , J. Zhou, M. A. Leeftang, H. Jahr, A. A. Zadpoor <i>Delft University of Technology, The Netherlands</i>	Cor-3
10.00-10.15	O16	The effect of extrusion conditions on the corrosion and mechanical properties of biodegradable Mg alloys for orthopaedic applications	<u>Ryan Wilkes</u> , M. Staiger, B. Nowak, G. Dias <i>University of Canterbury, New Zealand</i>	Cor-4
10.15-10.20	SOP11	Porosity and degradation behaviour of Mg-0.6Ca alloy under physiological conditions	<u>Eshwara P.S. Nidadavolu</u> , T. Ebel, F. Feyerabend, R. Willumeit-Römer, M. Dahms <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Cor-5
10.20-10.25	SOP12	Biocorrosion behaviour of the magnesium alloy WE43: influence of immersion conditions and surface modifications	<u>Michael Höhlinger</u> , S. Heise, A. Boccaccini, S. Virtanen <i>University Erlangen-Nürnberg, Germany</i>	Cor-6
10.25-10.30	SOP13	Adsorption of proteins on degrading magnesium surface	<u>Ruiqing Hou</u> , F. Feyerabend, R. Willumeit-Römer <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Cor-7
<b>10.30-10.40</b>	<b>General discussion of SOP</b>			
<b>10.40-11.10</b>	<b>Healthy break</b>			
11.10-11.25	O17	Effect of severe plastic deformation on microstructure and corrosion behavior of Mg alloy	<u>Jiao Meng</u> , J. Bai, F. Xue, Y. Zhang, H. Cai, C. Chu <i>Southeast University, China</i>	Cor-8
11.25-11.40	O18	Evolution of local pH and dissolved oxygen concentration during in vitro degradation of pure Zn and Zn-Mg alloys	<u>Sviatlana Lamaka</u> , M. Zheludkevich <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Cor-9



Wednesday, August 29<sup>th</sup>, 2018

Session 3 – Corrosion

Chairs: Carla Vogt & Guangyin Yuan

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
11.40-11.55	O19	Optimisation of the corrosion rate of iron-based alloys for bioresorbable stent applications by surface acidification	<u>Sarah Reuter</u> , C. Georges, P. Jacques <i>Université Catholique de Louvain, Belgium</i>	Cor-10
11.55-12.10	O20	Hunting individual atoms Challenges for the determination of low concentrations in small sample amounts	J. Bode, F. Zimmermann, M. Rinne, S. Meerwald, <u>Carla Vogt</u> <i>Freiberg University of Mining and Technology, Germany</i>	Cor-11
12.10-12.15	SOP14	3D printed silicone vascular and heart model for biodegradable endovascular device characterization	<u>Haibo Gong</u> , M. Mao, F. Xu, K. Ying <i>Trandomed, Inc., China</i>	Cor-12
12.15-12.20	SOP15	Degradation studies of Mg membranes for dental surgery	<u>Helga Hornberger</u> , M. Trahanofsky, A. Sudermann, F. Kneissl <i>OTH Regensburg, Germany</i>	Cor-13
12.20-12.25	SOP16	Cytotoxicity of Ceramic-coated Mg-1.2Zn-0.5Ca-0.5Mn Resorbable Skeletal Fixation Hardware	<u>David Dean</u> , H. Ibrahim, T. McManus, A. Dehghan, T. MacDonald, J. Lammel, M. Wandel, A. Luo, R. Advincula, M. Elahinia <i>The Ohio State University, USA</i>	Cor-14
<b>12.25-12.35</b>	<b>General discussion of SOP</b>			
12.35-13.10	K4	Ageing in the musculoskeletal system - Cellular function and dysfunction throughout life.	<u>James Edwards</u> <i>Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, UK</i>	
<b>13.15-19.00</b>	<b>Lunch and Excursion (full details onsite)</b>			
<b>19.00-20.30</b>	<b>Dinner</b>			



Thursday, August 30<sup>th</sup>, 2018

Session 4 – *In vitro*

Chair: Daniela Zander & Arie Bruinink

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
9.00-9.30	K5	The effect of magnesium-degradation products can be influenced by hypoxia in the coculture of endothelial and mesenchymal stem cells	<u>Lei Xu</u> , R. Willumeit-Römer, B. Luthringer – Feyerabend <i>Helmholtz-Zentrum Geesthacht, Germany</i>	InVit-1
9.30-9.45	O21	Porous Zn-based scaffold for bone regenerations	I. Cockerill, Y. Su, M. Young, Y. Qin, Y. Zheng, <u>Donghui Zhu</u> <i>University of North Texas, USA</i>	InVit-2
9.45-10.00	O22	DFT study of the adsorption of short peptides on Mg and Mg based alloy surfaces	<u>Shaokang Guan</u> , Z. Fang, J. Wang, L. Wang <i>Zhengzhou University, China</i>	InVit-3
10.00-10.05	SOP17	Effects of continuous degradation and Cu <sup>2+</sup> release on anti-infection mechanism of Fe-Mn-C-Cu alloys	<u>Zheng Ma</u> , L. Tan, K. Yang <i>Chinese Academy of Sciences, China</i>	InVit-4
10.05-10.10	SOP18	The degradation behaviour and the rapid re-endothelialization effect of Atorvastatin-eluting magnesium-based stents	<u>Ansha Zhao</u> , C. Ye, J. Wang, D. He, J. Wang, N. Huang <i>Southwest Jiaotong University, China</i>	InVit-5
10.10-10.15	SOP19	An ex vivo vessel culture model to study the cellular response to magnesium-based stent	<u>Juan Wang</u> , M. Kural, P. Ling, G. Li, N. Huang, L. Niklason <i>Yale University, USA</i>	InVit-6
10.15-10.20	SOP20	In vitro degradation behaviour, drug release properties, and biocompatibility of iron oxide nanostructured arrays coated with polycaprolactone	<u>Juncen Zhou</u> , Y. Yang, S. Virtanen <i>University of Erlangen-Nuremberg, Germany</i>	InVit-7
<b>10.20-10.30</b>	<b>General discussion of SOP</b>			
<b>10.30-11.00</b>	<b>Healthy break</b>			
11.00-11.15	O23	Cytotoxicity and hemocompatibility of magnesium alloys	<u>Norman Munroe</u> <i>Florida International University, USA</i>	InVit-8
11.15-11.30	O24	Effect of Osmolality and Mg Ions on Viability, Proliferation and Migration of Human Gingival Fibroblast (HGF)	<u>Romina Amberg</u> , A. Elad, F. Witte <i>Charité – Medical University Berlin, Germany</i>	InVit-9



Thursday, August 30<sup>th</sup>, 2018

Session 4 – In vitro

Chair: Daniela Zander & Arie Bruinink

Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.

Time	Code	Title	Authors	Page
11.30-11.45	O25	Reduction of Magnesium-Induced Biomineralization using Matrix GLA Protein	D. Hong, S. Zaky, R. Chong, K. Verdelis, F. Witte, <u>Charles Sfeir</u> <i>University of Pittsburgh, USA</i>	InVit-10
11.45-12.00	O26	3D cell culture to test novel implants	<u>Nicholas Donohue</u> , B. Lohberger, N. Grün, A. Weinberg <i>Medical University of Graz, Austria</i>	InVit-11
12.00-12.05	SOP21	Effect of fetal bovine serum on in vitro degradation behavior and cytotoxicity of Zn and Zn alloys	<u>Ping Li</u> , C. Schille, E. Schweizer, F. Rupp, A. Heiss, C. Legner, U. Klotz, J. Geis-Gerstorfer, L. Scheideler <i>University Hospital Tuebingen, Germany</i>	InVit-12
12.05-12.10	SOP22	Magnesium ions activates canonical Wnt signaling to induce osteogenesis in hBMSCs	<u>George Hung</u> , K. Liu, C. Sfeir <i>University of Pittsburgh, USA</i>	InVit-13
12.10-12.15	SOP23	Influence of glioblastoma cell lines on magnesium degradation	<u>Reneé Unbehau</u> , B. Luthringer-Feyerabend, R. Willumeit-Römer <i>Kiel University, Germany</i>	InVit-14
12.15-12.20	SOP24	Fe-based bioresorbable alloy inhibits platelet activation	<u>Carole Verhaegen</u> , S. Lepropre, M. Octave, S. Kautbally, A. Thomas, S. Reuter, E. Scarcello, D. Lison, L. Bertrand, L. Delannay, P. Jacques, C. Beauloye, S. Horman, J. Kefer <i>Université catholique de Louvain, Belgium</i>	InVit-15
<b>12.20-12.30</b>	<b>General discussion of SOP</b>			
12.30-12.35	SOP25	The long term degradation and transport mechanism of a Mg-Nd-Zn-Zr stent in rabbit common carotid artery	<u>Jian Zhang</u> , J. Pei, G. Yuan <i>Shanghai Jiao Tong University, China</i>	InVit-16
12.35-12.40	SOP26	Testing magnesium metal alloys for use as pediatric bone nails	K. Little, <u>Sarah Pixley</u> , D. Glos, V. Shanov, Z. Xu <i>University of Cincinnati, USA</i>	InVit-17
12.40-12.45	SOP27	Biodegradable PLA/Mg films for tissues regeneration	<u>Ana Ferrández-Montero</u> , M. Lieblich, J. González Carrasco, R. Detsch, A. Boccaccini, B. Ferrari <i>National Center of Metallurgical Research (CENIM), Spain</i>	InVit-18
<b>12.45-12.55</b>	<b>General discussion of SOP</b>			
<b>13.00-16.15</b>	<b>Lunch and free time</b>			



Thursday, August 30<sup>th</sup>, 2018

Session 5 – *In vivo*

Chair: Berengere Luthringer & George Diaz

*Assignment Code: K=Keynote; O=Oral presentation; SOP=Short oral presentation. Presenting author underlined.*

Time	Code	Title	Authors	Page
16:15-16:45	K6	Magnesium metal electrospun with polycaprolactone into nanofibrous fabrics has tissue reparative effects in vivo	<u>Sarah Pixley</u> , U. Adhikari, X. An, S. Khanal, T. Hopkins, N. Bhattarai, W. Heineman <i>University of Cincinnati, USA</i>	InViv-1
16:45-17:00	O27	Mg-Zn-Sr alloy based interference screw developed for ACL reconstruction	<u>Huafang Li</u> , Y. Wu, J. Wang, Y. Zheng, L. Qin <i>University of Science and Technology Beijing, China</i>	InViv-2
17:00-17:15	O28	Effects of magnesium on bone-implant interfaces with and without polyether-ether-ketone particle interference: a rabbit model based on porous Ti6Al4V implants	Z. Du, X. Yu, M. Ibrahim, K. Yang, <u>Lili Tan</u> , Y. Wang <i>Chinese Academy of Sciences, China</i>	InViv-3
17:15-17:30	O29	Comparison of MgZnCa degradation between juvenile and old rats	<u>Nicole Grün</u> , N. Donohue, P. Holweg, L. Berger, J. F. Löffler, A. Weinberg, D. Hahn <i>Medical University of Graz, Austria</i>	InViv-4
17:30-18:00	<b>Healthy break</b>			
18:00-18:15	O30	A biodegradable magnesium-based implant combined with codelivery of chemotherapeutic drug to improve tumor-induced bone defect healing	<u>Lei Zhang</u> , T. Hu, C. Chen, H. Miao, G. Yuan, Z. An, J. Pei <i>Shanghai Jiao Tong University, China</i>	InViv-5
18:15-18:30	O31	An insight into the in vivo degradation of magnesium alloys with the help of non-destructive synchrotron radiation microcomputer tomography	<u>Diana Krüger</u> , F. Wieland, J. Moosmann, B. Zeller-Plumhof, J. Hammel, S. Galli, R. Willumeit-Römer <i>Helmholtz-Zentrum Geesthacht, Germany</i>	InViv-6
18:30-19:00	<b>Conclusive remarks and 11<sup>th</sup> Biometal 2019 site announcement.</b>			
19:00-23:00	<b>Conference dinner</b>			



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P2	SOP2	On the degradation of binary Mg alloys with an ultra-low content of Ca and Zn under simulated physiological conditions	<u>Mariano Casas Luna</u> , E.B. Montufar, L. Celko, M. Horynová, L. Klakurková, N. Hort <i>Central European Institute of Technology, Czech Republic</i>	Met-6
P3	SOP3	Investigating the feasibility of an Mg-RE WEZ221 alloy for biomedical applications	<u>Francesco D'Elia</u> , P. Hiestler, A. Kopp, C. Ptock <i>Meotec GmbH &amp; Co. KG, Germany</i>	Met-7
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P5	SOP5	In vitro degradation behaviour of biodegradable Mg alloy wires/Polylactic acid composite used for orthopedic implants	C. Chu, F. Xue, J. Meng, <u>Hong Cai</u> , Y. Zhang, J. Bai <i>Southeast University, China</i>	Met-11
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P7	SOP7	Fabricating bio-scaffolds by coating hydroxyapatite on metallic 3D woven lattices	<u>Ju Xue</u> , T. Weihs, J. Guest, S. Hall, W. Grayson <i>Johns Hopkins University, USA</i>	Met-13
P8	SOP8	Combining the best of both worlds: partly degradable permanent implants	<u>Thomas Ebel</u> , J. G. Schaper, V. Haramus, S. Bußacker <i>Helmholtz-Zentrum Geesthacht, Germany</i>	Met-22
P9	SOP9	Study on degradable magnesium alloys for bone screws	<u>Zhentao Yu</u> , C. Wang <i>Northwest Institute for Nonferrous Metal Research, China</i>	Met-23



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P12		On the Fe-Mn-C alloys: processing and characterization	C. Paternoster, C. Loy, B. Occhionero, <u>Jacopo Fiocchi</u> , C. Biffi, A. Tuissi, D. Mantovani <i>CNR-ICMATE, Italy</i>	Met-27
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