

## Introduction to the Special Issue

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Robert M. McMeeking, ICF President (2017–2021)  
Professor, University of California, Santa Barbara



As President of ICF for 2017 to 2021 it is my great pleasure to offer a few comments of congratulations and admiration to my good friend and colleague David Taplin. I have known David since ICF4 in Waterloo in 1977, where, as a young researcher attending the Congress I was able to admire David's organizational skills, efficiency and effectiveness. Then, after I moved to UCSB I got to know David better when he came for an extended research visit to Santa Barbara. Thereafter we remained friends and colleagues over the years, mainly through ICF. Whether it was listening to David give an erudite lecture on his fracture research, seeing him at Congresses that he attended, being with him in committee meetings of ICF, or having a good time with him on social occasions such as seeing together Scotland beat England at rugby union in Edinburgh, it has been a pleasure and an honor to know David, work with him and be his friend. We in ICF and our successors will be eternally grateful to David for his achievements in making ICF a premier organization and conference. The standing of ICF today is truly a testament to his hard work, dedication and organizational skills. Congratulations David on all your great achievements and on this wonderful Festschrift. Lang may yer lum reek!

Proceedings of a Special Symposium in the Honor of

**David M.R. Taplin**

for his scholarly contributions and for dedicated service to ICF over six decades  
 Fourteenth International Conference on Fracture, ICF14  
 June 18–22, 2017, Rhodes, Greece

This special volume of the *Journal of Strength, Fracture and Complexity* is dedicated to papers presented at ICF14 in Rhodes, Greece in June 2017 in a symposium organized to honor the many scientific contributions of David M.R. Taplin in field of grain boundary fracture under creep and fatigue conditions and his outstanding service to ICF in several leadership roles from 1969 to 2017. Dr. Taplin's professional career as a metallurgist, in which he takes great pride, began as a student apprentice in 1957. Having come from generations of teachers in Derbyshire, he derived great fulfillment in teaching imaginative young people in universities around the world including his native country England, Canada, USA, Australia, Ireland, Cuba, India, and Singapore. He also has enjoyed amazingly warm and sustaining friendships around the world through his involvement with International Congress on Fracture, ICF, an organization that he nurtured through many leadership roles over a period of six decades.



Prof. Taplin seen in the company of Prof. Ben Averbach, President of ICF (1973–77) seated to his left and Prof. George Irwin behind them in a light moment at ICF4 in Waterloo (1977) during an after-dinner speech by Prof. Bruce Bilby.

Professor Taplin first became involved in ICF in 1969 as a founding member of the ICF Council representing Canada, and a participant at ICF2. He then served as ICF Director (1973–1977), as Vice President (1977–1981), President (1981–1985) and Treasurer (1985–2017). He also served as the Executive Chair of ICF4 in Waterloo, Canada in 1977. He was awarded the title of ICF Fellow in 1977 and he was the first recipient of the Takeo Yokobori ICF Gold Medal at ICF12 (2009) in Ontario, Canada. In 2010, he was awarded the title of “President Emeritus”. Dr. Taplin's first research on intergranular fracture was in 1959 at ICI Research Laboratories and later at Birmingham College of Technology (Aston University) as a DipTech Project. His work continued at Oxford under the supervision of John Martin on

nuclear materials, and thereafter on nickel-base super-alloys, advanced ceramics and ultra-light materials, in various universities during a long career.

While working to nurture ICF, he travelled widely and formed deep ties with researchers all around the globe including the founder of ICF Prof. Takeo Yokobori in Japan, and including well known researchers in the US, Canada, Africa, India, China, and Europe. Many of his colleagues from around the world attended the symposium in his honor at ICF14 in Rhodes and have contributed papers included in this special volume.



David Taplin with Emmanuel Gdoutos on the campus of Caltech to review plans for ICF 14 surrounding a plaque commemorating the 50<sup>th</sup> anniversary of International Journal of Fracture launched by Prof. Max Williams, another important figure in the history of ICF.



A picture from ICF13 in Beijing (2013), L to R: David Taplin, Maria Konsta-Gdoutos, Paul C. Paris, Emmanuel Gdoutos, and Mimoun Elboujdaini.

David Taplin's role in building the ICF brand is unsurpassable and has no equal. When ICF Awards Committee was looking for someone to award the ICF Yokobori Gold Medal for service to ICF at ICF12 and was looking to set very high standards in the inaugural medal winner, David's name immediately

rose to the top to set the “gold standard”. The symposium chair, Ashok Saxena said the following in his opening remarks at the symposium. *“David breathes and dreams ICF at all hours of the day including the early hours of morning and odd hours at late night and all the hours in between. What is truly amazing is that he has done that for over 40 years. Among his many accomplishments during that period was his leadership in setting up the ICF Awards Program at ICF12. I was fortunate to have the opportunity to partner with David as the Chair of the ICF Awards Committee to bring that plan into fruition.”* See a list of ICF gold and silver medalists at the end of this note that represents the who’s who in the fracture community.



David Taplin seen in this picture in 2011 on the campus of University of Arkansas, Fayetteville with Prof. Ashok Saxena, Dean of Engineering, drawing plans for ICF15 scheduled for 2021. ICF15 is scheduled to take place in Atlanta, Georgia in June 13-18, 2021.

The entire ICF community joins as one in wishing David well in his retirement after stepping down from the ICF Treasurer’s position in June of 2017 having served in that role for 32 years. We wish him the best of health and spirits and look forward to his presence at future ICFs.



David Taplin seen in this 2010 picture in Sendai with Prof. Takeo Yokobori (Center), Founder President of ICF, and Prof. Alberto Carpinteri (left), ICF President (2009-2013).



A picture of several of David's close friends and colleagues connected with Cambridge University including Profs. John Knott (bottom row right), Robert Ritchie (top row 2<sup>nd</sup> from right), Wei Zhou (top row 1<sup>st</sup> from left), Charles McMahon (bottom row left) and Wole Sobeyjo (top row 2<sup>nd</sup> from left) from Oct. 2002 at the conference in John Knott's honor at a TMS meeting in Columbus, Ohio.

*Messages from some of David Taplin's collaborators and friends*

*“David has played a key and central role in ICF since its inception. His contributions to building, nurturing and – occasionally – nursing this organization through its evolution and growth into the hugely influential organization it has now become cannot be underestimated. It is perhaps his life's greatest achievement. David deserves every recognition for his outstanding contributions both to the science of fracture and to its wider recognition in the Materials Community. I would like to wish him a long, happy and rewarding retirement”* ——— **Michael F. Ashby, Cambridge, England**

*“I first met David Taplin in Munich in 1973, at ICF-3 no less. I was giving one of my first presentations ever and David was busily trying to canvass everyone to secure the next ICF. He succeeded and secured ICF-4 for Canada. “A star was born!” Since that time, David's contributions to ICF have been nothing short of legendary; he has worked tirelessly for the past forty years or more and, as we all know, the sound position that the ICF organization currently enjoys and the numerous successful conferences and inter-quadrennials that ICF have staged over this period are in no small part due to the efforts of David. But I most value David as a close friend. I have met him and talked with him in the four corners of the globe – from Houston to Hawaii, New Delhi to Turin, Beijing to Ottawa, Kyoto to Kiev, Cambridge to Berkeley. He will always remain as one of the most interesting persons that I have ever encountered! I trust that these proceedings will provide at least some testament to the magnificent role that David has played in the development of ICF”* ——— **Robert O. Ritchie, University of California, Berkeley**

*“I am really proud of the picture above with David and Prof. Yokobori for its symbolic meaning of continuity in the ICF activities for more than half a century. I am honoured to share with David and Prof. Yokobori the spirit of service and friendship among the ICF Community”* ——— **Alberto Carpinteri, Turin, Italy**

*“Dear David, I've been delighted to have you as an admired colleague and friend, that starting from around 1977 when you were organizing that impactful International Conference on Fracture (ICF) in Waterloo, Canada. I, like hordes of others world-wide, am grateful for your nearly career-long dedication to helping this area of fracture-related science prosper, diversify and grow, and yet stay in good touch with itself. That success is, of course thanks in very large part to the ICF umbrella which you've so*

*effectively, and passionately, kept aloft. Many thanks, and warm wishes” ——— Jim Rice, Cambridge, Massachusetts*

*“I am delighted to add this brief note to the preface. David Taplin was on a scientific and spiritual quest when he arrived at the Babbatpur airport in Varanasi on November 19, 1967. Palle Rama Rao and I put on our best suits to receive him. An extraordinary bond developed with David fortified by our Oxbridge connection. David valued the fact that my doctoral supervisor was Alan Cottrell, one of the founders of fracture research. The bonds were strengthened as I had the privilege of appointing Ashok Saxena to the faculty at BHU. David had a broad vision of science, religion and society and tirelessly worked to bring us together” ——— S. Ranganathan, Bengaluru, India*

*“The name David Taplin is synonymous with ICF. His passion, love, dedication, hard-work will be indelibly imprinted on the pages of fracture mechanics history. His ideas, guidance and encouragement will always remain in our hearts and guide us in the future. Thank you, David for what you have done for ICF” ——— Emmanuel E. Gdoutos, Athens, Greece*

*“If there is one professional to whom I owe my small part in fracture research, it is Professor DMR Taplin. David Taplin visited Banaras Hindu University in 1967. During that visit he founded fracture research in the Department of Metallurgical Engineering. This seminal initiative led to the formation of a small fracture research group at Banaras Hindu University which in a way proved infectious for it resulted in initiation and growth of fracture research in India.*

*David Taplin was instrumental in bringing me into the fold of ICF and thereby hangs a tale! Deceptively fun-loving, he never fails to make everlasting contributions. What he has contributed as President, Treasurer and CEO of ICF, is very much there on record.*

*Professor Taplin can be regarded as a citizen of the world. He has travelled extensively the world over. Because of his commendable eclectic outlook, he has cultivated friendships of inestimable worth in several parts of the world. I have immense respect and affection for him. I wish him good health, happy and enjoyable time in the coming years” ——— Palle Rama Rao, Hyderabad, India*

**Ashok Saxena, Symposium Chair and Guest Editor  
University of Arkansas, Fayetteville, AR, USA**

A list of ICF medal recipients

**Takeo Yokobori Gold Medal**

David M.R. Taplin	2009
P. Rama Rao	2013
Yiu Wing Mai	2013
Teruo Kishi	2013
Emmanuel Gdoutos	2017
A. Toshimitsu Yokobori	2017

**Alan Cottrell Gold Medal**

Robert O. Ritchie	2009
Subra Suresh	2013
John F. Knott	2013
Michael F. Ashby	2017

**George Irwin Gold Medal**

Paul C. Paris	2009
James R. Rice	2013
John Hutchinson	2013
Robert V. Goldstein	2017

**Paul C. Paris Gold Medal**

Alberto Carpinteri	2013
Y. Murakami	2013
Ashok Saxena	2017
Richard Hertzberg	2017

**Constance Tipper Silver Medal**

Julia King	2013
Diane Lados	2013
Namrata Gundiah	2013
Sylvie Pommier	2017
Francesco Iacoviello	2017