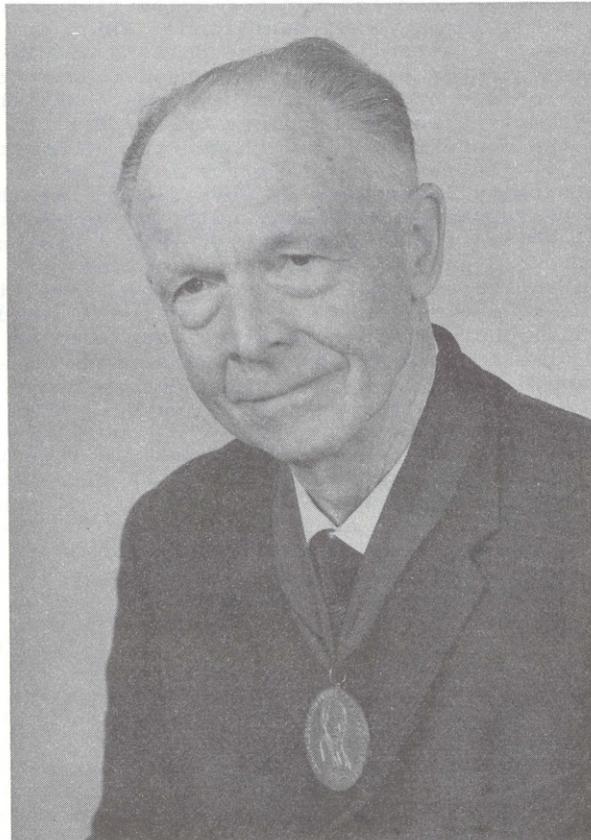


GEORGE WILLIAM SCOTT BLAIR, CO-EDITOR-IN-CHIEF
(NOVEMBER 1959 TO DECEMBER 1978) AND CO-FOUNDER OF BIORHEOLOGY

A TRIBUTE

A letter by my old friend George W. Scott Blair, dated August 24, 1978 and addressed to the members of the International Society of Biorheology reached me on August 31 in La Jolla just prior to the Convocation during the Third International Congress of Biorheology, held at the University of California, San Diego. As the Society's last President Alex Silberberg was the Chairman of the Convocation, I asked him to read this letter at this occasion to the participants of our Congress. George's letter is therefore contained, prior to the two Convocation Addresses, in this double issue dedicated to Maurice Joly. In his letter, George announces his retirement as Co-Editor-in-Chief of our journal by December 31 of this year, because his failing eyesight would make it impossible for him to continue in this capacity.

I should like to express to George W. Scott Blair my personal regret, shared by the Publishers of our journal and by our twelve Editors and the members of the Advisory Editorial Board, the Members of our Society and, I believe, the Readers of Biorheology.



Portrait of George William Scott Blair
as recipient of the Poiseuille Gold Medal Award. A photograph taken in 1969.

In 1943 I received in Charlottesville, Virginia, where I did medical and surgical research at the University of Virginia, a letter from Dr. Scott Blair, in which he invited me to be the Chairman of a symposium on the application of rheology to medical science, organized by the British Rheologists Club (1), later named the British Society of Rheology, as part of its annual conference, held in 1944 in Oxford. Because of the war I could not participate in this meeting. It was four years later, when I first met George Scott Blair during the First International Congress on Rheology in Bad Scheveningen, Holland.

In 1952 I moved from New York City to Paris where I worked for nearly five years, during which time I visited George Scott Blair at the National Institute for Research in Dairying, University of Reading, Shinfield near Reading, England, where he was Head of the Physics Department. It was during these visits when we renewed our friendship which began in Bad Scheveningen.

On the recommendations of George and of my friend R.G. Macfarlane of the Radcliffe Infirmary, Oxford, I accepted the post as Director of Research of Vascular Diseases and Head of the Medical Research Laboratories of Charing Cross Hospital (University of London), where I worked for nearly three years before returning to New York City in the end of December 1969. During my stay in London I interested George in flow properties of blood and we both attacked experimentally several hemorheological problems in joint studies, he at Shinfield and I in London. At Charing Cross Hospital, I founded the first Hemorheology Laboratory, as one of the research laboratories under my direction. My association with George was scientifically very productive as it led to the many papers, which we published together.

My association with George was also productive in furthering biorheology as an organized science. In 1958 we organized at Charing Cross Hospital Medical School a meeting, to which about 100 men and women came, in order to discuss the "Flow of Blood in Relation to the Vessel Wall" (2). The success of this meeting indicated the need for further activities and, following discussions between G.W. Scott Blair, R.G. Macfarlane, FRS., F.J.W. Roughton, FRS and myself, Roughton drew the attention of the Colloid and Biophysics Committee of the Faraday Society to our project. We agreed to extend the scope of the proposed meeting to include biorheological systems other than blood. The Faraday Society's Committee was then joined by the British Society of Rheology in sponsoring the conference "Flow Properties of Blood and Other Biological Systems" (1,3). The meeting took place in Oxford on September 23 and 24, 1959 at the University Laboratory of Physiology. At that time I was associated as Visiting Professor of Pathology with the Royal College of Surgeons of England, where I edited the Proceedings of this conference (4). In connection with this activity, I had several phone conversations with Mr. Robert Maxwell, the Publisher of these Proceedings. In one of them, some time in November 1959 Mr. Maxwell asked me to meet with him in his office in London as he wanted to start an international journal of biorheology and asked me to be its Editor-in-Chief. At that time I asked Mr. Maxwell, whose idea it was to publish this journal, whether I could bring along my friend George Scott Blair, whom I would like to be Co-Editor-in-Chief in case such a journal could be realized. To this he agreed and we then met in his office in London about a week later. Both George and I tried to discourage Mr. Maxwell in this venture and told him that an earlier publication, the Journal of Rheology, could not survive and that only a few issues appeared. This, however, did not discourage Mr. Maxwell and he persuaded us to go ahead in starting "Biorheology. An International Journal" as a quarterly publication, which began in 1962. As is well known, our Journal contributed greatly to the advancement of our science. We invited as Co-Editors Robin Fåhræus, Maurice Joly, Aharon Katchalsky, Syoten Oka, H.H. Pfeiffer and twenty-one Members for the Advisory Editorial Board. As George Scott Blair stated in his letter of August 24, 1978, he and I were responsible for every communication that was submitted to the Journal and we took the final decision as to its publication. The change from a typeset journal to the present one of camera-ready publication, beginning with vol.15 of this year, was recommended to the Publishers by me, to make it possible for George because of his failing eyesight to continue as Co-Editor-in-Chief. As stated in his letter, he felt that, in spite of our new policy of having twelve Editors and the resulting markedly decreased workload to him as Editor-in-Chief, he had to retire, because of further deterioration of his eyesight. This we all deeply regret.

George Scott Blair made many substantial contributions to biorheology including blood flow, as well as to non-biological rheology. The uniqueness of his attainments to biorheology including hemorheology was honored by our So-

ciety with the Poiseuille Medal Award during the Second International Conference on Hemorheology at the University of Heidelberg in 1969. In my Presidential Address honoring George William Scott Blair, I have given an account of his career at the ceremony of the Poiseuille Award (5). I emphasized that he did pioneering work in many fields of rheology and biorheology. For his high scientific attainments George Scott Blair received many other honors from his peers (5).

George Scott Blair made many scientific contributions to biorheology besides those on hemorheology. He worked on human pre-natal mammary secretions, synovial fluids, bull semen, bovine and human cervical mucus. Later he developed tests for ovulation and pregnancy in cows. Substantial contributions to psycho-rheology were also made by Scott Blair, a term he proposed with F.M.V. Coppen. As psychology can be regarded as a branch of biology, the field of psycho-rheology belongs in my view to biorheology (6).

Scott Blair's main concern was to study the thresholds for assessing the viscosity of highly viscous liquids and the rigidity of elastic solids. He developed a "theory of quasi-properties", introducing fractional differential equations to relate to assessment of sensations to physical stimuli (5). These equations are now used in modified form for studying the creep of metal alloys.

When I was honored with the Poiseuille Award at the First International Congress of Biorheology three years later, I have happy memories of George giving the presentation address (7). I should like to thank him again for his kind and thoughtful words. I shall always be grateful to him for his recognition of the role which I played in the organization of our science and of our Society (7), a role which I am happy to have shared with him.

In his book "An Introduction to Biorheology", published three years ago (8), George Scott Blair provided an overall picture of the scope of the subject with emphasis on the practice rather than purely theoretical aspects. This is a book printed for Readers who are not familiar with biorheology and for those who are actively engaged in advancing knowledge in any of its rapidly growing fields.

From my foreword to George's last book (6), I am quoting the following:

"George W. Scott Blair is endowed with several gifts, rare among scientists. His originality as experimentalist and thinker is combined with that of an enthusiastic teacher. He captivates audiences by the unique presentation of highly intricate subjects with eloquence and an uncommon capacity to make them easily understood. He appears to humanize both the subject he is talking about and the audience by his warmth and wit, thus providing a different dimension in addition to the information he conveys in what he sets out to do from his vast knowledge, critical appraisal and deep insight. As George W. Scott Blair entices a listening audience, he is a master of keeping alive the interest of the readers of the introductions he wrote in his books and articles on the physical science of rheology. His "Introduction to Biorheology" is such an admirable text. No one other than the author could have given a more stimulating account of this newly organized Science and no one has worked in more fields of biorheology than Scott Blair".

I have many fond memories of George from many places we worked and visited together. Grist Cottage is the lovely home of my close friend George, where he lives with his charming wife Rita in Iffley Village, the oldest part of Oxford near the famous Norman Church. There I visited him every year since my return to New York in the end of 1959 and worked with him in the editing of our journal. I have another old friend there, the huge willow tree in his tiny garden, which lies between his cottage and the river Thames (9). It is there, in this hospitable home, where we all wish him well in his retirement.

I thank you, George, and wish you many years of happy retirement and good health with Rita in your beautiful city of Oxford.

A.L. Copley

REFERENCES

1. SCOTT BLAIR, G.W. Foreword. In: Flow Properties of Blood and Other Biological Systems. A.L. Copley and G. Stainsby (Eds.). New York-Oxford-London, Pergamon Press. 1960, pp. XIII-XV.
2. SCOTT BLAIR, G.W. The flow of blood in relation to the vessel wall. Nature (London) 182, 90-91, 1958.
3. SCOTT BLAIR, G.W. Flow properties of biological systems. Nature (London) 184, 1539-1540, 1959.
4. COPLEY, A.L. and STAINSBY, G. (Eds.) Flow Properties of Blood and Other Biological Systems. Proceedings of an Informal Discussion Convened Jointly by the Faraday Society (Colloid and Biophysics Committee) and The British Society of Rheology. New York-Oxford-London, Pergamon Press. 1960. 464 pp.
5. COPLEY, A.L. Presidential address honoring George William Scott Blair. In: Theoretical and Clinical Hemorheology. H.H. Hartert and A.L. Copley (Eds.) Berlin-Heidelberg-New York, Springer-Verlag. 1971, pp. 5-9.
6. COPLEY, A.L. Foreword. In: An Introduction to Biorheology. Amsterdam-Oxford-New York, Elsevier Scient. Publ. Co. 1974, pp. V-VII.
7. SCOTT BLAIR, G.W. Poiseuille award ceremony for A.L. Copley. Presentation address. Biorheology 10, 263-64, 1973.
8. SCOTT BLAIR, G.W. An Introduction to Biorheology. Amsterdam-Oxford-New York, Elsevier Scient. Publ. Co. 1974, 224 pp.
9. COPLEY, A.L. George W. Scott Blair: The scientist and the man. J. Texture Studies (D. Reidel Publ. Co., Dordrecht, Holland) 4, 10-12, 1973.