

History of the International Association for Radiation Research

Introduction

At the turn of the millennium, some former and current Officers of the International Association for Radiation Research have produced an update on the history and aims of our Association. The motivation is the conviction that radiation research still has an essential role to play in serving the needs of society in the new millennium and that international co-operation and understanding is a vital factor.

This history survey was prepared by J.J. Broerse, E.M. Fielden, E.J. Hall, M. Sasaki, F.A. Stewart and revised by G. Grossi. The original version (now modified) covering 1958 to 1978 was written by G. Silini.

The early history: 1955-1962

During the 1950's, the National Academy of Sciences - National Research Council (NAS-NRC) Subcommittee on Radiobiology continued to promote the advancement of radiation research through a series of annual workshops, and in 1955 the NAS-NRC group began to think about an international congress as a sequel to the Oberlin Symposium. The American Radiation Research Society, which held its first meeting in 1953, was invited to participate in its organisation and a Committee was constituted by the cosponsors with A. Hollaender as Chairman and A.M. Brues, H.J. Curtis, G. Failla, E.J. Hart, H.S. Kaplan, A.K. Solomon, and R.E. Zirkle as members.

The University of Vermont was selected as the site, and 10-16 August 1958 as the time. To achieve a truly international flavour, liaison was established with a European Steering Committee that had arranged conferences in radiobiology at Aarhus (1953), Liege (1954), Cambridge (1955), and Stockholm (1956). The Organising Committee designated A. Hollaender (USA) President, J. Mitchell (UK) Vice-President, and H. Patt (USA) Secretary-General of what was to become the *First International Congress of Radiation Research* (ICRR). The Honorary President was G. de Hevesy (Sweden) and there was an impressive array of Honorary Vice-Presidents: D.W. Bronk (USA), H.W. Holthusen (FRG), A. Lacassagne (France), S.C. Lind (USA), H.J. Muller (USA), R.M. Sievert (Sweden), F.G. Spear (UK), and M. Tsuzuki (Japan).

The First International Congress of Radiation Research attracted 627 full members and 214 associate members. A varied programme of symposia and proffered papers in each of the four disciplines of physics, chemistry, biology and medicine, was presented. The seven symposia were later published as Supplement No. 1 to the journal 'Radiation Research', in 1959, under the editorship of D.E. Smith and entitled 'Proceedings of the International Congress of Radiation Research'.

In connection with this First Congress, some of the participants proposed the organisation of further International Congresses. In order to facilitate this task a small informal Committee of twelve persons (the Burlington Committee), with G. de Hevesy as Chairman and A. Forssberg as Secretary, was therefore set up. Since only a limited number of people took part in the Burlington Congress, it was proposed by the members of this group to set up another elected body called the Executive Committee having a wider representation. More than 300 persons with experience in radiation physics, chemistry and

biology were therefore identified and asked to vote on the composition of the Committee made by a Chairman, a Secretary and two members for each of the following fields: radiation physics, radiation chemistry, radiation biology and science in general. Names were put on ballot and in October 1959 the resulting composition of the Executive Committee was as follows:

Executive Committee 1959-1962

Chairman	G. de Hevesy (Stockholm, Sweden)
Secretary	A. Forssberg (Stockholm, Sweden)
Members for Radiation Physics	L.H. Gray (Northwood, UK) K.G. Zimmer (Karlsruhe, FRG)
Members for Radiation Chemistry	P. Alexander (London, UK) L. Eldjarn (Oslo, Norway)
Members for Radiation Biology	A. Hollaender (Oak Ridge, USA) R. Latarjet (Paris, France)
Members for Science in general	A.M. Brues (Argonne, USA) J.S. Mitchell (Cambridge, UK)

The most immediate task of the Committee was to promote the *Second International Congress of Radiation Research* in 1962. Strong efforts were made to involve the Russian radiation research community in the association and it was proposed that the Second Congress be held in Russia. In the event this did not prove possible; England was chosen as the host country.

The Committee worked for the establishment of a more permanent organisation of radiation research to be set up on the occasion of this Congress, which was held in Harrogate (UK) from 5 to 11 August 1962, (Chairman: L.H. Gray, Vice-Chairman: F.S. Dainton, Secretary: A. Howard, and Treasurer: C.L. Smith). This Second Congress was attended by 1153 full members and 139 associate members. The rapporteur method of presentation was used for the proffered papers for the first time in this field, and published under the editorship of M. Ebert and A. Howard in a book entitled 'Radiation Effects in Physics, Chemistry and Biology' in 1963.

A document with a proposal for an international organisation of Radiation Research was reviewed by some members of the Executive Committee during the course of the Harrogate Congress and widely circulated to form the basis for a discussion on the establishment of such an organisation during a meeting held on 9 August 1962. In the course of this Constitutional assembly, the International Association for Radiation Research (IARR) was founded as a permanent structure to represent Radiation Research internationally. Founding members of the IARR were: the British Association for Radiation Research, the Radiation Research Society of the USA, the Japan Radiation Research Society and the European Society for Radiation Biology.

The first Council: 1963-1966

The President, Secretary and four Councillors to represent various areas of research were elected at Harrogate. The representative of the member Societies were nominated by May 1963 and four Councillors at Large were later elected by mail ballot to represent geographic areas where formal scientific organisations of a similar type were not yet established. By July 1963 the composition of the Council was as follows:

IARR Council 1963-1966

- Elected Members

President	A. Hollaender (Oak Ridge, USA)
Secretary	G. Magni (Pavia, Italy)
Councillor for Physics	K.G. Zimmer (Karlsruhe, FRG)
Councillor for Chemistry	F.S. Dainton (Leeds, UK)
Councillor for Biology	A.M. Kuzin (Moscow, USSR)
Councillor for Medicine	A. Nelson (Sundbyberg, Sweden)
Councillor at Large I	L.R. Caldas (Rio de Janeiro, Brazil)
Councillor at Large II	A.R. Gopal-Ayengar (Bombay, India)
Councillor at Large III	F. Hercik (Brno, Czechoslovakia)
Councillor at Large IV	H.A.S. van den Brenk (Melbourne, Australia)

- Representatives appointed by the founding Societies

Association for Radiation Research	J.F. Loutit (Harwell, UK)
Radiation Research Society	H.M. Patt (Argonne, USA)
Japan Radiation Research Society	K. Tsukamoto (Chiba, Japan)
European Society for Radiation Biology	Z.M. Bacq (Liège, Belgium)

The new Council was charged with the preparation of the Association's Constitution. This document was reviewed repeatedly in the course of 1963, approved finally by Council in April 1964 and by the four founding Societies in July of the same year.

In the meantime the organisation of the *Third International Congress of Radiation Research* was proceeding. Following an invitation from Italy, the Council approved in July 1963 that the Congress should be held in Cortina from 26 June to 2 July 1966 and elected A.A. Buzzati-Traverso as President of the Congress. The Italian Organising Committee later appointed G. Silini as Secretary-General and A. Castellani as Treasurer of the Congress. This Third Congress was attended by approximately 1100 full members and 200 associate members, and a broad spectrum of papers, organised in the traditional fashion of symposia and proffered papers, was held. The symposia, now twelve in number, were published as 'Radiation Research', edited by G. Silini in 1967.

During this term the membership of the Association increased to include two other Societies. The Netherlands Radiobiological Society, founded in July 1960, was admitted in April 1965. A Radiobiology Club, which had previously been operating in Sweden, formed itself into the Swedish Radiobiological Society in April 1965 was accepted by the Council in October 1965.

The second Council: 1966-1970

The General Assembly in Cortina was the first at which delegates from the various member organisations were present and elected the new Council, according to the recently established Constitution. The composition of the second Council was as follows:

IARR Council 1966-1970

- Elected Members

Honorary-President	A. Hollaender (Oak Ridge, USA)
President	F.H. Sobels (Leiden, The Netherlands)
Vice-President	J.W. Boag (Sutton, UK)
Secretary-Treasurer	R.F. Kimball (Oak Ridge, USA)
Councillor for Physics	K.G. Zimmer (Karlsruhe, FRG)
Councillor for Chemistry	A. Kuppermann (Pasadena, USA)
Councillor for Biology	H.J. Evans (Harwell, UK)
Councillor for Medicine	F. Devik (Oslo, Norway)
Councillor at Large I	R. Latarjet (Paris, France)

Councillor at Large II	G. Silini (Rome, Italy)
Councillor at Large III	W.K. Sinclair (Argonne, USA)
- Representatives appointed by organisations which have more than 100 active members	
Association for Radiation Research	T. Alper (London, UK)
Radiation Research Society	H. Friedell (Cleveland, USA)
Japan Radiation Research Society	K. Tsukamoto (Chiba, Japan)
European Society for Radiation Biology	Z. Dienstbier (Prague, Czechoslovakia)
Netherlands Radiobiological Society	D.W. van Bekkum (Rijswijk, The Netherlands)
Swedish Radiobiological Society	A. Forsberg (Stockholm, Sweden)

The first meeting of the new Council took place on 1 July 1966 at Cortina. On this occasion A. Hollaender was appointed as Honorary President of the IARR, in recognition of his important role in founding the Association. The Council accepted an invitation to hold the 1970 Radiation Research Congress in France and discussed the affiliation of the IARR with other International Organisations, such as the International Union of Biological Sciences and the International Union of Pure and Applied Biophysics.

A second meeting of the Council was held on 4 June 1968 at Interlaken, during which the final arrangements for the *Fourth International Congress of Radiation Research* were approved. This event took place in Evian from 29 June to 4 July 1970 (R. Latarjet, President; J.F. Duplan, Secretary-General, and M. Frilley, Treasurer). The Congress attracted a total membership of between 1500 and 1600, and the 195 papers included in symposium sessions were published under the title 'Advances in Radiation Research' edited by J.F. Duplan and J. Chapiro in 1973, in five volumes: two in physics and chemistry and three in biology and medicine. The Council voted to accept a preliminary invitation of the Radiation Research Society to hold the 1974 Congress in the United States. The admission of the IARR as Section for Radiation Biology of the IUBS was finally ratified. The application for membership of the Polish Association for Radiation Research, the first Scientific Society from the Eastern European countries, was also affirmed in June 1970.

The third Council: 1970-1974

The second General Assembly of the IARR took place on 2 July 1970 at Evian. The new Officers and Members of Council elected on that occasion were:

IARR Council 1970-1974

- Elected Members

Honorary-President	A. Hollaender (Oak Ridge, USA)
President	J.W. Boag (Sutton, UK)
Vice-President	H.S. Kaplan (Stanford, USA)
Secretary-Treasurer	D.W. van Bekkum (Rijswijk, The Netherlands)
Councillor for Physics	R.B. Setlow (Oak Ridge, USA)
Councillor for Chemistry	M. Ebert (Manchester, UK)
Councillor for Biology	Y. Tazima (Shizuoka, Japan)
Councillor for Medicine	J.F. Duplan (Paris, France)
Councillor at Large I	M.S. Swaminathan (New Delhi, India)
Councillor at Large II	B. Tarusov (Moscow, USSR)
Councillor at Large III	G.F. Whitmore (Toronto, Canada)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	T. Alper (London, UK)
Radiation Research Society	C.L. Dunham (Washington, USA)
Japan Radiation Research Society	K. Misono (Chiba, Japan)
European Society for Radiation Biology	Z. Dienstbier (Prague, Czechoslovakia)
Netherlands Radiobiological Society	O. Vos (Rijswijk, The Netherlands)
Swedish Radiobiological Society	A. Nillson (Sundbyberg, Sweden)
Polish Association for Radiation Research	J. Kroh (Lódź, Poland)

The Council approved, during its first meeting on 4 July 1970 in Evian, the details of the preparations for the *Fifth International Congress of Radiation Research* held in Seattle from 14 to 20 July 1974 (V.P. Bond, President; J.L. Magee, Vice-President, and W.K. Sinclair, Secretary-General). This Congress had a total of 1724 members (1455 full and student) from no less than 36 countries. The programme followed a traditional pattern of plenary, symposia and proffered papers (984 in all) and it extended in scope beyond the normal borders of radiation research to encompass related problems in closely allied fields. The six plenary sessions, twenty-four symposia and two special lectures were published in a volume entitled 'Radiation Research, Biomedical, Chemical and Physical Perspectives' edited by O.F. Nygaard, H. Adler and W.K. Sinclair in 1975.

The revision of the IARR Constitution was among the most important tasks carried out by the new Council. Although the Association had been administered successfully for ten years according to the first Constitution, it was recognised that certain modifications of this document were desirable to render it more suitable to the needs of an expanding society. President J.W. Boag and its Council undertook the heavy duty to revise the Constitution in conjunction with various representatives of the member Societies. The new text was submitted for a final discussion and approved by the 1974 General Assembly. The Association operates at present on the basis of this new Constitution.

Two more groups enlarged the membership of the Association during this time. The Section on Radiation Biophysics of the Deutsche Gesellschaft für Biophysik and the Working Group for Radiation Biology of the Deutschen Röntgengesellschaft submitted an application for membership in the IARR to represent jointly radiation research in FRG. The admission of the two groups was accepted by Council in May 1974.

The fourth Council: 1974-1979

The third General Assembly was held at Seattle on 16 July 1974 on the occasion of the Fifth International Congress of Radiation Research. It was mainly devoted to the discussion and approval of the new Constitution. The following members of the Council were elected among those proposed by a nominating committee:

IARR Council 1974-1979

- Elected Members

Honorary-President	A. Hollaender (Oak Ridge, USA)
President	H.S. Kaplan (Stanford, USA)
Vice-President	D.W. van Bekkum (Rijswijk, The Netherlands)
Secretary-Treasurer	G. Silini (Rome, Italy)
Councillor for Physics	T. Brustad (Oslo, Norway)
Councillor for Chemistry	J.H. Baxendale (Manchester, UK)

Councillor for Biology	G.W. Barendsen (Rijswijk, The Netherlands)
Councillor for Medicine	R.F. Kallman (Stanford, USA)
Councillor at Large I	G.E. Adams (Northwood, UK)
Councillor at Large II	R.J.M. Fry (Argonne, USA)
Councillor at Large III	K. Misono (Chiba, Japan)
- Representatives appointed by organisations which have more than 100 active members	
Association for Radiation Research	A. Tallentire (Manchester, UK)
Radiation Research Society	C.L. Dunham (Washington, USA)
Japanese Association for Radiation Research formerly Japan Radiation Research Society	H. Matsudaira (Chiba, Japan)
European Society for Radiation Biology	M. Quintiliani (Rome, Italy)
Netherlands Radiobiological Society	L.M. van Putten (Rijswijk, The Netherlands)
Swedish Radiobiological Society	A. Nilsson (Sundbyberg, Sweden)
Polish Association for Radiation Research	J. Kroh (Łódź, Poland)
Joint German Groups	C. Streffer (Essen, FRG)

The first meeting of the new Council (Seattle, 14 July 1974) approved the invitation by the Japan Radiation Research Society to host the Sixth International Congress in that country. During the second Council meeting (Amsterdam, 18 September 1976) the membership of the Association increased further to include the Radiation Research Society of Israel, founded in 1976 and the newly-formed Belgian Society of Radiobiology. The Japanese representation within the Association was also increased with the admission of a new Japanese Association of Radiation Research in place of the former Japan Radiation Research Society.

The *Sixth International Congress of Radiation Research* took place in Tokyo from 13 to 19 May 1979 (K. Misono, President; S. Okamura and Y. Tazima, Vice-Presidents, and S. Okada, Secretary-General). A total number of 1268 scientists attended the Congress. The proceedings became available within six months after the congress with S. Okada, M. Imamura, T. Terashima, and H. Yamaguchi as editors.

The fifth Council: 1979-1983

During the week of the Congress the Council of the IARR met twice. The General Assembly was held on 16 May 1979. During the assembly bylaw No. 1 on the annual contribution from adhering organisations was changed and new bylaws Nos. 8 and 9 were ratified. From the list of nominees the following colleagues were elected to the new Council for the positions specified:

IARR Council 1979-1983

- Elected Members

Honorary-President	A. Hollaender (Oak Ridge, USA)
President	D.W. van Bekkum (Rijswijk, The Netherlands)
Vice-President	A.C. Upton (New York, USA)
Secretary-Treasurer	J.F. Duplan (Bordeaux, France)
Councillor for Physics	G.E. Adams (Didcot , UK)
Councillor for Chemistry	A. Henglein (Berlin, FRG)
Councillor for Biology	A. Tallentire (Manchester, UK)
Councillor for Medicine	M. Tubiana (Villejuif, France)
Councillor at Large I	S. Okada (Tokyo, Japan)
Councillor at Large II	M.M. Elkind (Argonne, USA)
Councillor at Large III	J.F. Fowler (Northwood, UK)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	E.M. Fielden (Sutton, UK)
Radiation Research Society	W.K. Sinclair (Argonne, USA)
Japanese Association for Radiation Research	K. Oshima (Tokyo, Japan)
European Society for Radiation Biology	L.E. Feinendegen (Julich, FRG)

Netherlands Radiobiological Society	J.A.G. Davids (Petten, The Netherlands)
Swedish Radiobiological Society	A. Nilsson (Sundbyberg, Sweden)
Polish Association for Radiation Research	J. Kroh (Łódź, Poland)
Joint German Groups	H. Jung (Hamburg, FRG)

The outgoing president informed the assembly that the Council had accepted the invitation from the Netherlands Radiobiological Society to host the 7th ICRR at Amsterdam. At the last Council meeting at Tokyo it was recommended that the organising committee of the forthcoming congresses of the IARR be chosen six years ahead instead of four years to facilitate its task. The interim meeting of the IARR Council was held on 28 June 1981 at the beginning of the Fifteenth International Congress of Radiology at Brussels. During this meeting the Council decided that the Association for Radiation Research would organise the Eighth ICRR in the United Kingdom.

The *Seventh International Congress of Radiation Research* was held at Amsterdam from 3 to 8 July 1983 (J.A.G. Davids, President; K. Breur and F.H. Sobels, Vice-Presidents, and J.J. Broerse, Secretary-General). A total number of 1255 scientists attended the Congress. One of the high-lights of the Congress was a reception offered by the Queen of the Netherlands to an international delegation of participants. The proceedings were published within four months after the Congress with J.J. Broerse, G.W. Barendsen, H.B. Kal and A.J. van der Kogel as editors.

The sixth Council: 1983-1987

The fifth Council met during the Amsterdam Congress on 3 July 1983. The General Assembly took place on 7 July, at which new bylaw No. 10 was ratified, and the Council in its new composition convened on 8 July. During the meeting M. Elkind suggested that the IARR establish the H.S. Kaplan Distinguished Scientist Award. The membership of the Italian Association for Radiation Biology and the Italian Society for Radiation Research to represent jointly radiation research in Italy was also accepted. From the list of nominees the following colleagues were elected to the new Council for the positions specified:

IARR Council 1983-1987

- Elected Members

Honorary-President	A. Hollaender (Oak Ridge, USA)
President	A.C. Upton (New York, USA)
Vice-President	G.E. Adams (Didcot, UK)
Secretary-Treasurer	J.J. Broerse (Rijswijk, The Netherlands)

Councillor for Physics	A.M. Kellerer (Wurzburg, FRG)
Councillor for Chemistry	M. Imamura (Wako, Japan)
Councillor for Biology	E.J. Hall (New York, USA)
Councillor for Medicine	H. Suit (Boston, USA)
Councillor at Large I	B.J. Michael (Northwood, UK)
Councillor at Large II	G. Walinder (Sundbyberg, Sweden)
Councillor at Large III	J. Kroh (Łódź, Poland)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	E.M. Fielden (Didcot, UK)
Radiation Research Society	M.M. Elkind (Colorado, USA)
Japanese Association for Radiation Research	T. Kumatori (Chiba, Japan)
European Society for Radiation Biology	J.R. Maisin (Mol, Belgium)
Netherlands Radiobiological Society	A.W.T. Konings (Groningen, The Netherlands)
Polish Association for Radiation Research	A. Plonka (Todz, Poland)
Joint German Groups	U. Hagen (Neuherberg, FRG)
Joint Italian Groups	L. Tallone-Lombardi (Milan, Italy)
Indian Society for Radiation and Photochemical Sciences (from 1985)	J. Mittal (Mumbai, India)

The interim Council meeting was held on 6 September 1985, at Harwell UK. Four countries had submitted invitations to host the 9th ICRR. After ample consideration, Toronto was chosen as the venue for the 1991 Congress. The Henry S. Kaplan Award with medal and prize was established during the interim meeting. Indian Society for Radiation and Photochemical Sciences (ISRAPS) was admitted to the IARR in 1985. In the spring of 1987 the application of the China Committee for Radiation Research for full membership of the IARR was circulated among the Council members. This application was unanimously accepted.

The *Eighth International Congress of Radiation Research* took place at Edinburgh from 19 to 24 July 1987 (G.E. Adams, President; Sir Alastair Currie and Sir Frederick Dainton, Vice-Presidents, and E.M. Fielden, Secretary-General). A total number of 1350 delegates from 37 countries, attended the Congress. M.M. Elkind was the first recipient of the Henry S. Kaplan Award. The proceedings, under the joint editorship of E.M. Fielden, J.F. Fowler, J.H. Hendry and D. Scott, were published as two hardback volumes, vol. 1 contained the abstracts of all presentations and was available at the Congress, while vol. 2 contained the invited papers and was published in November 1987. Subsequent Congresses have adopted this same format for their proceedings. During the Congress the sixth Council met on 19 July 1987.

The seventh Council: 1987-1991

The General Assembly took place during the Edimburgh Congress on 23 July. From the list of nominees the following colleagues were elected to the new Council for the positions specified:

IARR Council 1987-1991

- Elected Members

President	G.E. Adams (Didcot, UK)
Vice-President	G.F. Whitmore (Toronto, Canada)
Secretary-Treasurer	J.J. Broerse (Rijswijk, The Netherlands)
Councillor for Physics	H. Paretzke (Neuherberg, FDR)
Councillor for Chemistry	S. Okada (Tokyo, Japan)
Councillor for Biology	J. Denekamp (Northwood, UK)
Councillor for Medicine	L.J. Peters (Houston, USA)
Councillor at Large I	L.B. Sztanyik (Budapest, Hungary)
Councillor at Large II	K. Sakamoto (Tokyo, Japan)
Councillor at Large III	J.M. Brown (Stanford, USA)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	E.M. Fielden (Didcot, UK)
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Radiation Research Society	H.R. Withers (Los Angeles, USA)
Japanese Association for Radiation Research	H. Tanooka (Tokyo, Japan)
European Society for Radiation Biology	J.R. Maisin (Mol, Belgium)
Netherlands Radiobiological Society	H.B. Kal (Rijswijk, The Netherlands)
Swedish Radiobiological Society	G. Walinder (Nykoping, Sweden)
Polish Association for Radiation Research	J. Kroh (Lódź, Poland)
Joint German Groups	D. Schulte-Frohlinde (Mulheim an der Ruhr, FDR)
Joint Italian Groups	L. Tallone-Lombardi (Milan, Italy)
Indian Society for Radiation and Photochemical Sciences	J. Mittal (Mumbai, India)
China Committee for Radiation Research	Xun Shen (Beijing, China)

The interim Council meeting was held on 27 May 1989 at Rome. The Council had already received an offer of the German colleagues to host the 10th ICRR in Würzburg, Federal Republic of Germany, in connection with the centennial of Röntgen's discovery of X-rays. The Council unanimously accepted the invitation. In view of all the commitments of the IARR, the Council decided that annual subscription would be raised to 3 US dollars per member of each National Society as per 1 January 1990. An application for membership of the IARR by the Australian Institute of Nuclear Science and Engineering was enthusiastically accepted by the Council.

The *Ninth International Congress of Radiation Research* took place in Toronto from 7 to 12 July 1991 (G.F. Whitmore, President; J.F. Ward, Vice-President, and J.D. Chapman, Secretary-General). The meeting had a total attendance of 1774 individuals, including the North American Hyperthermia Group, which made it the largest ICRR up to that time. H.R. Withers was the second recipient of the Henry S. Kaplan Award. The proceedings were published under the editorship of W.C. Dewey, M. Edington, R.J.M. Fry, E.J. Hall and G.F. Whitmore. During the Congress, the old Council met on 6 July 1991.

The eighth Council: 1991-1995

A number of German Societies active in the areas of biophysics, medical physics and radiation protection pooled their radiation research interests and established the German National Association for Radiation Research. Its membership in the IARR as the successor of the Joint German Groups was unanimously accepted by the Council as of January 1991. The General Assembly took place on 11 July during the Toronto Congress and the new (eighth) Council met on 12 July. From the list of candidates prepared by the nomination committee the following Council was elected:

IARR Council 1991-1995

- Elected Members

President	G.F. Whitmore (Toronto, Canada)
Vice-President	J.J. Broerse (Rijswijk, The Netherlands)
Secretary-Treasurer	E.M. Fielden (Didcot, UK)
Councillor for Physics	H. Paretzke (Neuherberg, Germany)
Councillor for Chemistry	Y. Hatano (Tokyo, Japan)
Councillor for Biology	E.J. Hall (New York, USA)
Councillor for Medicine	J. Overgaard (Aarhus, Denmark)
Councillor at Large I	C. Streffer (Essen, Germany)
Councillor at Large II	R.J.M. Fry (Argonne, USA)
Councillor at Large III	H. Takebe (Kyoto, Japan)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	J.H. Hendry (Adlington, UK)
Radiation Research Society	J. D. Zimbrick (Washington, USA)
Japanese Association for Radiation Research	H. Tanooka (Tokyo, Japan)
European Society for Radiation Biology	E. Riklis (Beer Sheva, Israel)
Netherlands Radiobiological Society	H.B. Kal (Rijswijk, The Netherlands)
Swedish Radiobiological Society	M. Edgren (Stockholm, Sweden)
Polish Association for Radiation Research	J. Kroh (Lódź, Poland)
German National Association of Radiation Research Societies formerly Joint German Groups	H. Paretzke (Neuherberg, Germany)
Joint Italian Groups	V. Covelli (Rome, Italy)

Indian Society for Radiation
and Photochemical Sciences

J. Mittal (Mumbai, India)

China Committee for Radiation Research

Wu De-Chang (Beijing, China)

In 1992 applications for membership in the IARR were received from Ireland and South Africa. These applications were processed and accepted unanimously by the Council during its interim meeting held at Dallas on 25 March 1993. Four countries had offered to host the 11th ICRR in 1999. An absolute majority of Council members were in favour of the proposal from Ireland.

The *Tenth International Congress of Radiation Research* took place at Würzburg from 27 August to 1 September 1995 (U. Hagen, President, L.E. Feinendegen and D. Schulte-Frohlinde, Vice Presidents and C. Streffer, Secretary General). The Congress was opened by a lecture on Röntgen's discovery of X rays. Approximately 1500 scientists attended the Congress. G.E. Adams was the third recipient of the Henry S. Kaplan Award. The Congress proceedings were published under the joint editorship of U. Hagen, D. Harder, H. Jung and C. Streffer. During the Congress, the old Council met on 27 August 1995.

The ninth Council: 1995-1999

The General Assembly took place during the Würzburg Congress on 29 August 1995 at which new bylaws Nos. 11 and 12 were ratified. The new (ninth) Council met on 31 August at the Würzburg University Campus. From the list of candidates prepared by the nomination committee the following Council was elected:

IARR Council 1995-1999

- Elected Members

President	J.J. Broerse (Leiden, The Netherlands)
Vice-President	E.J. Hall (New York, USA)
Secretary-Treasurer	E.M. Fielden (Didcot, UK)
Councillor for Physics	D. Goodhead (Didcot, UK)
Councillor for Chemistry	P. Wardman (Oxford, UK)
Councillor for Biology	M. Frankenberg-Schwager (Göttingen, Germany)
Councillor for Medicine	J.B. Little (Harvard, USA)
Councillor at Large I	M. Coppola (Rome, Italy)

Councillor at Large II	M. Sasaki (Kyoto Japan)
Councillor at Large III	R. Martin (Melbourne, Australia)
- Representatives appointed by organisations which have more than 100 active members	
Association for Radiation Research	P. Bryant (St Andrews, UK)
Radiation Research Society	J. D. Zimbrick (Washington, USA)
Japanese Association for Radiation Research	A. Shima (Tokyo, Japan)
European Society for Radiation Biology	J. Hopwell (Oxford, UK)
Netherlands Radiobiological Society	H.B. Kal (Rijswijk, The Netherlands)
Swedish Radiobiological Society	M. Edgren (Stockholm, Sweden)
Polish Association for Radiation Research	K. Chomiczewski (Warsaw, Poland)
German National Association of Radiation Research Societies	J. Narrog (Stuttgart, Germany) 1995-1996 & C. Streffer (Essen, Germany) 1997-1998
Joint Italian Groups	G. Grossi (Naples, Italy)
Indian Society for Radiation and Photochemical Sciences	J. Mittal (Mumbai, India)
China Committee for Radiation Research	Ge Zhong-Liang (Beijing, China)
Australian Institute of Nuclear Science	R. Cooper (Yallambie, Australia)
Irish Radiation Research Society	C. Mothersill (Dublin, Ireland)

The interim Council meeting was held after the meeting of the European Society for Radiobiology in Oxford on 27 September 1997. Proposals and presentations were put forward by colleagues on behalf of five member Societies. The proposal from Australia had a majority of the votes cast and the 12th ICRR in 2003 is to be held in Brisbane.

The *Eleventh International Congress of Radiation Research* was held at Dublin from 23 to 28 July 1999 (M.J. Moriarty, President, D.G. Hirst, Vice-President, and C. Seymour, Secretary General). J.B. Little was the fourth recipient of the Henry S. Kaplan Award. The Congress attracted an audience of approximately 1200 scientists. The proceedings were published under the joint editorship of M. Moriarty, C. Mothersill, C. Seymour, M. Edington, J.F. Ward and R.J.M. Fry. During the Congress the old Council met on 18 July 1999.

The tenth Council: 1999-2003

The General Assembly took place during the Dublin Congress on 20 July 1999 and the new (tenth) Council met on 22 July.

From the list of candidates the following Council was elected:

IARR Council 1999-2003

- Elected Members

President E.J. Hall (New York, USA)

Vice-President M. Sasaki (Kyoto, Japan)

Secretary-Treasurer F.A. Stewart (Amsterdam, The Netherlands)

Councillor for Physics A.M. Kellerer (Munich, Germany)

Councillor for Chemistry J. D. Zimbrick (Washington, USA)

Councillor for Biology M. Brown (Stanford, USA)

Councillor for Medicine M. Maciejewski (XX, Poland)

Councillor at Large I M. Harms-Ringdahl (Stockholm, Sweden)

Councillor at Large II E. Travis (Houston, USA)

Councillor at Large III E. Dikomey (Hamburg, Germany)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research P. O'Neill (Didcot, UK)

Radiation Research Society J. Ward (San Diego, USA)

Japanese Association for Radiation Research O. Niwa (Chiba, Japan)

European Society for Radiation Biology J. Hopwell (Oxford, UK)

Netherlands Radiobiological Society H.B. Kal (Rijswijk, The Netherlands)

Swedish Radiobiological Society J. Carlsson (Uppsala, Sweden)

Polish Radiation Research Society formerly Polish Association for Radiation Research	K. Chomiczewski (Lodz, Poland)
German National Association of Radiation Research Societies	H. Jung (Hamburg, Germany)
Joint Italian Groups	G. Grossi (Naples, Italy)
Indian Society for Radiation and Photochemical Sciences	J. Mittal (Mumbai, India)
China Committee for Radiation Research	Pan Zi Qiang (Beijing, China)
Australian Institute of Nuclear Science	R. Martin (Melbourne, Australia)
Irish Radiation Research Society	C. Mothersill (Dublin, Ireland)

The interim Council meeting was held during the annual meeting of the Radiation Research Society in San Juan de Puerto Rico on May 2001. Two proposals to host ICRR 2007 had been received from Japan and USA. The proposal from USA had a majority of the votes cast and the 13th ICRR in 2007 is to be held in San Francisco.

The *Twelfth International Congress of Radiation Research* was held at Brisbane from 17 to 22 August 2003 (L. Peters, President; R. Martin, Secretary General; D. Mather, Treasurer, and M. Lanvin, Chairman). E. Hall was the fifth recipient of the Henry S. Kaplan Award. The Congress attracted an audience of approximately 1100 scientists from 39 countries. During the Congress the old Council met on 17 August 2003.

The eleventh Council: 2003-2007

The General Assembly took place during the Brisbane Congress on 20 August 2003 and the new (eleventh) Council met on 21 August.

From the list of candidates the following Council was elected:

IARR Council 2003-2007

- Elected Members

President	M. Sasaki (Kyoto, Japan)
Vice-President	P. Olive (Vancouver, Canada)
Secretary-Treasurer	F.A. Stewart (Amsterdam, The Netherlands)
Councillor for Physics	R. Cherubini (Legnaro, Italy)

Councillor for Chemistry	M. Spothheim-Maurizoy (France)
Councillor for Biology	K. Prise (Middlesex, UK)
Councillor for Medicine	M. Baumann (Dresden, Germany)
Councillor at Large I	O. Niwa (Chiba, Japan)
Councillor at Large II	I. Stratford (Manchester, UK)
Councillor at Large III	J. Mittal (Mumbai, India)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	T. McMillan (Lancaster, UK)
Radiation Research Society	K. Held (Harvard, USA)
Japanese Association for Radiation Research	T. Ohnishi (Nara, Japan)
European Radiation Research Society formerly European Society for Radiation Biology	W. Doerr (Dresden) 2003-2004 & G. Grossi (Naples, Italy) 2005-2006
Netherlands Radiobiological Society	J. Wondergem (Leiden, The Netherlands)
Swedish Radiobiological Society	S. Sundell-Bergman (Stockholm, Sweden)
Polish Radiation Research Society	A. Cebulska-Wasilewska (Cracow, Poland)
German National Association of Radiation Research Societies	J. Kiefer (Wettenberg, Germany)
Joint Italian Groups	G. Simone (Rome, Italy)
Indian Society for Radiation and Photochemical Sciences	K. Mishra (Allahabad, India)
China Committee for Radiation Research	Pan Zi Qiang (Beijing, China)
Australian Institute of Nuclear Science	R. Martin (Melbourne, Australia)
Irish Radiation Research Society	S. McKeown (Londonderry, Northern Ireland)

The interim Council meeting was held during the meeting of the annual meeting of the Radiation Research Society in Denver on 19 October 2005. Proposals and presentations

were put forward by colleagues on behalf of two member Societies, the Polish Radiation Research Society and the Japanese Association of Radiation Research. The proposal from Poland had a majority of the votes cast and the 14th ICRR in 2011 is to be held from 28 August to 1 September 2011 in Warsaw.

The *Thirteenth International Congress of Radiation Research* was held at San Francisco from 8 to 12 July 2007 (T. Phillips, President; W. Bernhard, Treasurer; M. Brown, Secretary General, and L. Travis chaired the Scientific Program Committee). M. Brown was the sixth recipient of the Henry S. Kaplan Award. The Congress attracted an audience of approximately 1300 scientists. All sessions except the workshops were audio recorded and CDs of these sessions were available for purchase. During the Congress the old Council met on 8 July 8 2007. During this meeting the Council processed and accepted unanimously the Korean Association for Radiation Research application for membership in the IARR as of January 2007.

The twelfth Council: 2007-2011

The General Assembly took place during the San Francisco Congress on 9 July 2007 and the new (twelfth) Council met on 11 July 2007.

From the list of candidates the following Council was elected:

IARR Council 2007-2011

- Elected Members

President	P. Olive (Vancouver, Canada) 2007-2009 & O. Niwa (Chiba, Japan) 2010-2011
Vice-President	O. Niwa (Chiba, Japan)
Secretary-Treasurer	G. Grossi (Naples, Italy)
Councillor for Physics	K. Jelen (Cracow, Poland)
Councillor for Chemistry	P. Dedon (Cambridge, USA)
Councillor for Biology	M. Joiner (Detroit, USA)
Councillor for Medicine	K. Ono (Osaka, Japan)
Councillor at Large I	M.C. Vozenin-Brotans (Villejuif, France)
Councillor at Large II	K. Mishra (Allahabad, India)
Councillor at Large III	G. Taucher-Scholz (Darmstadt, Germany)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research	D. Jones (Leicester, UK)
Radiation Research Society	D. Murray (Edmonton, Canada)
Japanese Association for Radiation Research	T. Ohnishi (Nara, Japan)
European Radiation Research Society	G. Safrani (Budapest, Hungary) 2007-2008 & M. Rezvani (Reading, UK) from 2009
Dutch Society for Radiobiology formerly Netherlands Radiobiological Society	P. Sminia (Amsterdam, The Netherlands)
Polish Radiation Research Society	A. Cebulska-Wasilewska (Cracow, Poland)
German National Association of Radiation Research Societies	H. Paretzke (Neuherberg, Germany)
Italian Society for Radiation Research formerly Joint Italian Groups	G. Simone (Rome, Italy)
Indian Society for Radiation and Photochemical Sciences	T. Mukherjee (Trombay, India)
China Committee for Radiation Research	Pan Zi Qiang (Beijing, China)
Australian Institute of Nuclear Science	R. Martin (Melbourne, Australia)
Irish Radiation Research Society	S. McKeown (Londonderry, Northern Ireland) 2007-2009 & F. Lyng (Dublin, Ireland) from 2010
Korean Association for Radiation Research	Eun Kyung Choi (Seul, Republic of Korea)
Asian Association for Radiation Research (from 2010)	P. Kazymbet (Astana, Republic of Kazakhstan)

The interim Council meeting was held in Seoul during the Second Asian Congress of Radiation Research. During the meeting on 18 May 2009 a proposal from the Japanese Association for Radiation Research to host the 2015 International Congress of Radiation Research in Kyoto was presented and accepted unanimously. The 15th ICRR will be held in the end of May 2015 in Kyoto. Because the Italian Association for Radiation Biology decided to leave the Italian Joint Groups, the radiation research in Italy will be represented from now by the Italian Society for Radiation Research.

The *Fourteenth International Congress of Radiation Research* was held at Warsaw from 28 August to 1 September 2011 (A. Cebulska-Wasilewska, President; A. Lankoff., Treasurer; Marek K. Janiak, Chair of the Organizing Committee, and A. Wojcik, Chair of the Scientific Program Committee). R. Hill was the seventh recipient of the Henry S. Kaplan Award. The Congress attracted an audience of approximately 1100 scientists.

The thirteenth Council: 2011-2015

The General Assembly took place during the Warsaw congress on 30 August 2011 and the new (thirteenth) Council met on 1 September 2011. During this meeting the Council voted the membership termination of the Indian Society of Radiation and Photochemical Sciences, for the fees not paid from three consecutive years.

From the list of candidates the following Council was elected:

IARR Council 2011-2015

- Elected Members

President M. Durante (Darmstadt, Germany)

Vice-President M.H. Barcellos-Hoff

Secretary-Treasurer G. Grossi (Naples, Italy)

Councillor for Physics D. Brenner (New York, USA)

Councillor for Chemistry D. Jones (Leicester, UK)

Councillor for Biology R.P. Coppes, (Groningen, The Netherlands)

Councillor for Medicine K. Ono (Osaka, Japan)

Councillor at Large I K. Sakai (Chiba, Japan)

Councillor at Large II R.P. Hill (Toronto, Canada)

Councillor at Large III J.P. Williams (Rochester, USA)

- Representatives appointed by organisations which have more than 100 active members

Association for Radiation Research R.M. Anderson (London, UK)

Radiation Research Society B. Kimler (Kansas City, USA)

Japanese Association for Radiation Research T. Ohnishi (Nara, Japan)

European Radiation Research Society M. Rezvani (Reading, UK)

Dutch Society for Radiobiology
formerly Netherlands Radiobiological Society P. Sminia (Amsterdam, The Netherlands)

Polish Radiation Research Society	A. Cebulska-Wasilewska (Cracow, Poland)
German National Association of Radiation Research Societies	H. Paretzke (Neuherberg, Germany)
Italian Society for Radiation Research	G. Simone (Rome, Italy) 2011-2012 & A. Tabocchini (Rome, Italy) from 2013
China Committee for Radiation Research	Pan Zi Qiang (Beijing, China)
Irish Radiation Research Society	F.M. Lyng (Dublin, Ireland)
Korean Association for Radiation Research	Eun Kyung Choi (Seul, Republic of Korea)
Asian Association for Radiation Research	P. Kazymbet (Astana, Republic of Kazakhstan)

The interim Council meeting was held in Dublin during the 40th Annual Meeting of the European Radiation Research Society on 2 September 2013. During the meeting two bids to host the 2019 International Congress of Radiation Research were presented, the Council decided by a majority of votes for the Association for Radiation Research proposal, therefore the 16th ICRR will be held in the end of August 2019 in Manchester.