

“Elizabeth Rona Day” scheduled for January 31

(As published in The Oak Ridger’s Historically Speaking column on January 25, 2016)

First, let me express my appreciation and excitement for the 12 people who showed up last Thursday at the Midtown Community Center for the National Park Service’s Volunteer Orientation that was rescheduled. I stood in the Midtown Community Center parking lot that was a solid sheet of ice and asked them to return next Tuesday, 1/26/16, at 10 AM, because of the weather that caused the event to have to be rescheduled. Every one of them understood and agreed to return.

Although we did everything we could think of to inform people of the rescheduled volunteer orientation, obviously some did not get the word. One person actually drove over from Maryville. So, I am excited to see the level of interest next Tuesday. Come join us if you are at all interested in volunteering for the Manhattan Project National Historical Park.

Also, please be reminded of the public input opportunity on Monday, 2/1/16, at the Oak Ridge High School Cafeteria at 5:30 PM. Your input will be considered as the Foundation Workshop seeks input from all three sites before producing a report that will serve as a guide for the next steps of implementation of the Manhattan Project National Historical Park. Be a part of creating the future!

Now for this week’s Historically Speaking column. I want to bring you encouragement to participate in another very special event honoring a lady who was an Oak Ridger and a true pioneer in nuclear research from its very earliest days.

She was a contemporary of Marie Curie and other early researchers studying radioactivity. She was involved in research during the Manhattan Project for the Fat Man atomic bomb and worked to help understand the emerging science of radioactivity.

The special event announced in this column will add another historic artifact to the Oak Ridge Room at the Oak Ridge Public Library, a tremendous research destination for anyone seeking information about our history. The column is the product of Pat Hope, who has taken a special interest in the honoree, Dr. Elizabeth Rona.

If you remember Dr. Rona, you will be pleased to learn of the recent Tennessee state level recognition Pat Hope has helped provide for her. Dr. Rona is one of our own and another of our citizen scientists who is deserving of much more recognition than has been provided until now.

So, let’s enjoy Pat Hope’s article about Dr. Elizabeth Rona.

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Friends of the Oak Ridge Public Library (FOL) and the Women’s Equity Foundation (WEF) will sponsor a special event to honor the late Dr. Elizabeth Rona on Sunday, January 31, 2016, at 3 PM. The event will be held at the Oak Ridge Public Library auditorium.

Dr. Rona was recognized and installed in the Tennessee Women Hall of Fame at an October luncheon in Nashville. The award was accepted by Patricia Hope because Dr. Rona has no living kin. Hope will present the award to the Library where it will be placed in the Oak Ridge Room, along with other historic archives.

Hope wrote the article about Dr. Rona that is included in the **Tennessee Women of Vision and Courage** anthology published in 2013. Through the Tennessee Women Project, twenty Tennessee women authors researched, documented, and created profiles of twenty-two Tennessee women. The resulting book has won an Award of Distinction from the East Tennessee Historical Society and accolades from across the state.

Tennessee Women of Vision and Courage recognizes Tennessee women from frontier days through the twentieth century who faced hardship and challenges with courage and vision; they are a source of inspiration to women and girls of this twenty-first century. The project goal was met by placing a book in

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every public high school library. Dr. Rona is one of two Oak Ridgers featured in the book. Peggy Heddleson, an Oak Ridge artist, was also featured.

From participation in the creation of the atom bomb to her teaching the safe use of radioactive isotopes through the Atoms for Peace program, Elizabeth Rona had a front row seat at some of the great scientific moments of the 20th century. Her work in the European laboratories of Marie Curie, Otto Hahn, and others, and later in the United States, brought her to The Manhattan Project in Oak Ridge.

Dr. Rona's work in nuclear chemistry and physics and the measurement of radioactivity also put her on the front lines of isotope discovery, fission, and the making of polonium sources.

Sharing her scientific experiences through journals and the writing of her life's work alongside the world's pioneers of radioactivity led to safer laboratories and a stricter set of radiation safety standards.

FOL is a non-profit organization that holds used book sales, sponsors a summer reading program for children, sponsors a book club and takes part in other activities, all to benefit the Oak Ridge Public Library. Membership forms are available in the Library Lobby and at each book sale.

Additional information about FOL is available at www.oakridgetn.gov/department/library/ways-to-help/friends-of-the-library or you can “like” us on FaceBook: Friends of Oak Ridge Public Library. Donations of books, puzzles, CD's, audiocassettes, DVD's, and other publications are welcome by FOL any time.

The WEF, established in 2005, provides positive, energizing programs promoting opportunities for all women and girls through community outreach education and activities, such as the annual Tennessee Economic Summit for Women, which sponsors the Tennessee Women Hall-of-Fame. National, state, and local research define issues in Tennessee for which the Foundation makes recommendations for implementation of solutions.

WEF is a non-profit supporting organization of American Association of University Women Maryville Branch. The Foundation inherits more than 130 years of historical advocacy for women through the AAUW.

The program at 3PM on January 31, 2016, will include a short talk about Elizabeth Rona and the presentation to the library, and a short discussion about the Tennessee Women book, followed by an autograph session with **Tennessee Women of Vision and Courage** authors/editors. Book sale profits will benefit FOL. Refreshments will be served. Everyone is welcome.

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Thank you Pat, for sharing the announcement of the special recognition event at the library, but more so for your initiative to provide suitable recognition for Dr. Elizabeth Rona, one of our under-appreciated scientists. She is surely deserving of all you have done for her memory.

Dr. Elizabeth Rona wrote a book published by Oak Ridge Associated Universities in 1978 titled, *HOW IT CAME ABOUT: Radioactivity, Nuclear Physics, Atomic Energy*. Dr. Rona worked at Oak Ridge Institute of Nuclear Studies (precursor of Oak Ridge Institute for Science and Education, the Oak Ridge Associated Universities organization supporting the Department of Energy) from 1950 until 1965.

Dr. Rona then worked for ten years at the University of Miami, teaching at their Institute of Marine Sciences where she also assisted in the dating of core samples from the ocean floor using radioactive decay of elements in the samples. She understood climate change and the long term global changes that had created cyclic warming and cooling of the earth in the past. She also predicted the potential for adverse effect of burning fossil fuels.

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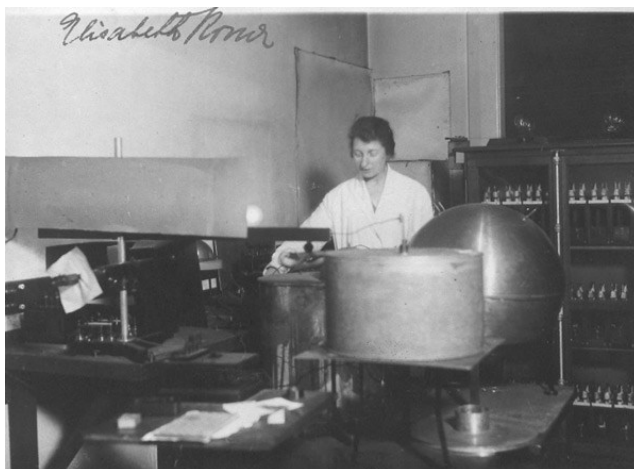
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She returned to Oak Ridge in retirement and after being persuaded by her peers, wrote of her amazing career alongside many other early nuclear pioneers. She also designed a Frisch Grid ionization chamber that was constructed in 1959 at the Oak Ridge Institute of Nuclear Studies. According to ORAU's web site, Frisch grid chambers are still used today for alpha spectroscopy, but they have mostly been replaced by semiconductor detectors (e.g., surface barrier and PIP detectors).

As with so many of our citizens, Dr. Elizabeth Rona, an accomplished scientist, is deserving of more recognition than we normally provide such individuals. And, thanks to folks like Pat Hope, we sometimes get it right!



Dr. Elizabeth Rona



Dr. Elizabeth Rona shown in a laboratory in Vienna

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Frisch Grid ionization chamber designed in 1959 by Elizabeth Rona