CAP & GOWN

A Newsletter for the Chillicothe Branch of the American Association of University Women

OCTOBER, 2011

DATES TO REMEMBER:

October 13	Book Sale Luncheon, 12:30 , Max & Erma's
Oct 20 & Nov 3	Bridge Group, 1:00 PM
Oct 29	**Downtown Halloween Parade—see our float!**
Nov 8	Drama Group, 7:00 PM
Nov 10	Money Smart Group, 6:30 PM
Nov 17	Book Club, 9:30 AM
Nov 19	SATURDAY, Membership Meeting at Mc Kell Library

MEMBERSHIP MEETING

Thursday, October 20, 2011

6:45 PM	Socialize, Raffle, Volunteer for Halloween Parade
7:00 PM	New Members Introduced!
7:10 PM	Program: "Effects of Microloans Made to Women" Speaker: Hamid Shahrestani, Professor of Economics, OU-C
8:00 PM	Business Meeting

LOCATION: Child Development Center at OU-C

STAY INFORMED ABOUT AAUW AT THE STATE LEVEL

The most recent edition of the **ORBIT**, the e-newsletter of Ohio AAUW, is available at: *http://aauwoh.org/aauwoh/wp-content/uploads/2011/09/Orbit-Summer-2011.pdf*

DINNER GROUP

If you are interested in joining the Dinner Group for this year, please call Marcia Austin soon. We will be creating the Dinner Group's calendar in November. Each member hosts one dinner party, usually in her home, sometime between January—June. Spouses and partners are welcome to attend these monthly dinners. Join us—it's fun!

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN
Chillicothe, OH Branch Meeting Minutes
September 15, 2011

Time: 6:15 p.m.
Location: Bell Tower Mission, Bourneville, Ohio
Members Present: 26, Guests: 3
Meeting Called to Order by: President Maryjo Flamm-Miller

PROGRAM: Annual Fall Diner Meeting

OU-C SCHOLARSHIP: President Maryjo Flamm-Miller introduced Tiffany Seymour, this year's OU-C Scholarship recipient. Tiffany is in the Human Services Technology Program. Maryjo also announced that Nilufer Woods was the OU-C Scholarship Honoree. She also recognized Jody Johnson as a 50 year member. Our OU Endowment Fund, which supports the OU-C scholarships, is currently at $36,000.

RAFFLE: Rita Long conducted the raffle, which was won by Joanna Tsitroulis. Guest Kim Calhoun won the door prize.

BOOK SALE UPDATES: Anne Holmes reported on the preparations for the 2011 Book Sale. She announced that more volunteers are needed to sort books and work at the sale. Joanna Tsitroulis suggested that we use the Lighthouse boys as runners while we sort the books on Saturday, September 30. There are book barrels at the following locations: Kroger on Western Ave., Corner Market, Community Market, Office Max, and the OU-C Shoemaker Center. Joyce Atwood announced that she can provide book sale gift cards in any amount desired. Diane Diekroger said that we need tables and food for the pot-luck lunch on Saturday, October 1, which is the Super Sort Day. She also asked for snacks on Friday, September 30th. We were reminded to bring clean garden gloves to protect our hands while sorting books. Joyce Atwood will be e-mailing teachers free coupons for books.

TELEPHONE COMMITTEE: Mary Lou Thompson asked for more volunteers for the calling team.

PROGRAMS: Rita Long reported on the programs for the upcoming year: the October program will be on microloans for women by OU-C Professor Hamid Shahrestani; the November program will be at the Mc Kell Library at the Ross County Heritage Center on rarely displayed Christmas archived materials; the December program will be a musical production at the Majestic Theater, followed by a catered dinner at the Pump House Arts Center; the January program will be our breakfast pot-luck with guest speaker Jihyu Liu, the Chinese language teacher at Chillicothe High School; the February program will also be a breakfast meeting with a program on "Education in One-Room Schoolhouses"; the March program will be on "Local Economic Growth Prospect" with guest speaker Chris Manegold, Executive Director of the Economic Alliance of Southeastern Ohio, it is also a breakfast pot-luck; the April program will be on "Women in unusual careers; and the May program will be a dinner meeting at Madison on the Lake. Rita explained that meetings for the year are on both Thursday evenings and Saturday mornings to accommodate scheduling speakers, in consideration of winter weather, and to encourage maximum member attendance. Generally, Branch meetings take place the 3rd week of the month.

NECKLACE PROJECT: President Maryjo Flamm-Miller announced that we've made $147. from the sale of the necklaces at the Pump House. Julie Willet announced we'll hold a necklace making workshop at the OU-C Learning Commons after the Book Sale. Members are encouraged to donate the $5 cost of a skein of yarn. We have a new goal of making 100 new necklaces, earrings and bracelets to sell at our booth at the Altrusa Bazaar on Saturday November 12, 2011.

RECOGNITIONS: President Maryjo Flamm-Miller recognized the outstanding work done by Chelsea Chenault and Diane Bambenek for the summer social and the Yearbook.

HALLOWEEN FLOAT: Karen Houts asked if we were going to have a float in the Halloween parade. Sue Anderson suggested that the theme be books for all ages. Theresa McAuliffe and Kim Calhoun volunteered to help with a float. Watch for emails.

TREASURER'S REPORT: Mary Martin, Treasurer

September Balance in Checking Account:	$4,777.63
Janney Investment Account:	$4,124.54 *(earning 1.4%)*

Next Branch Meeting: October 20 at 6:45 PM, at the OU-C Child Development Center.

Respectfully submitted:
Barbara A. Fabrey, Branch Secretary

MEMBERSHIP UPDATE

Welcome, to our newest Members:

Gail Anne Haga 779-1781 *(no email)*

Tonjia D. Phillips 772-4404 (*TWP65@roadrunner.com)*

Yearbook Addendum:
Karla Hanson, 145 Plum Street, Chillicothe, 701-2683, *khanson22@live.com,*
BA Psychology, Ohio University

CONDOLENCENES

Our Branch mourns the September 20th death of JEAN RUSK, a founding member of our Branch and a 50 Year member. Jean was a Past President and very active over the years in Branch activities. We offer our condolences to Jean's family who will surely feel her loss, as we will. Jean accomplished a lot in her 90 years. She was a graduate of Chilli-cothe High School and Ohio University, where she received her BSC and MA degrees. She served in the U.S. Navy (WAVES) during WWII. Prior to her marriage, she worked in student personnel at Ohio University and Texas Tech University. Together with her husband Charles, Jean co-founded Charley's Flowers, and worked there until her retirement in 1983. Jean was a pleasure to know. We will be making a $25 Memorial Gift to the OU Foundation for our Branch Scholarship program in Jean's honor.

NECKLACE PROJECT

New yarns have arrived! Call Julie Dargart-Willet, for a new skein. Donations of $5 appreciated. We have reserved a booth at the Altrusa Holiday Bazaar on **Saturday, November 12** (9AM—3PM) and are planning to sell our necklaces and any other jewelry that members make and wish to donate**.** Remember, all proceeds go towards building up our OU Endowment Fund for women's scholarships.

PRESIDENT'S COLUMN

by Maryjo Flamm-Miller

Great women in history always set a precedent for those of us who follow. Their lives often run counter to society's expectations and they achieve an important status because of their tenacity and focus. Accomplishing either small or significant "greatness" is possible for each of us to achieve. Sometimes all we need is opportunity and someone to believe in our potential. As we prepare the float for this year's Halloween Parade, we are thinking about how to best portray the message that by igniting girls' and women's potential, communities all around our world benefit. This will be the message from Hamid Shahrestani, too, and I hope you are planning to attend the October 20th Branch meeting.

The October issue of Smithsonian Magazine *(www.smithsonian.com/search)* includes an article on scientist and two-time Nobel Prize winner Marie Curie. I encourage you to read her life story and be inspired by her singular devotion to research. You may also be intrigued by the discoveries of ten little-known females in the article below. Regardless, AAUW helps each of us to take pride in intellectual pursuits. As we come into the season of autumn, it's a good time for introspection and, then, action.

TEN HISTORIC FEMALE SCIENTISTS YOU SHOULD KNOW

(information drawn from the Smithsonian Institute, at www.smithsonianmag.com/science-nature)

By Sarah Zielinski, Smithsonian.com, September 20, 2011

When it comes to the topic of women in science, Marie Curie usually dominates the conversation. After all, she discovered two elements, was the first women to win a Nobel Prize, in 1903, and was the first person to win a second Nobel, in 1911. But Curie was not the first female scientist. Many other brilliant, dedicated and determined women have pursued science over the years.

Emilie du Chatelet (1706 – 1749)

Gabrielle-Emilie Le Tonnelier de Breteuil, the daughter of the French court's chief of protocol, married the marquis du Chatelet in 1725. She lived the life of a courtier and bore three children. But at age 27, she began studying mathematics seriously and then branched into physics. This interest intensified as she began an affair with the philosopher Voltaire, who also had a love of science. Their scientific collaborations—they outfitted a laboratory at du Chatelet's home, Chateau de Cirey, and, in a bit of a competition, each entered an essay into a contest on the nature of fire (neither won)—outlasted their romance. Du Chatelet's most lasting contribution to science was her French translation of Isaac Newton's *Principia*, which is still in use today. At age 43, she fell in love with a young military officer and became pregnant; she died following complications during the birth of their child.

Caroline Herschel (1750 – 1848)

Herschel was little more than the household drudge for her parents in Hanover, Germany (she would later describe herself as the "Cinderella of the family"), when her older brother, William, brought her to England in 1772 to run his household in Bath. After she mastered the art of singing—to accompany William, who was the organist for the Octagon Chapel—her brother switched careers and went into astronomy. Caroline followed. In addition to assisting her brother in his observations and in the building of telescopes, Caroline became a brilliant astronomer in her own right, discovering new nebulae and star clusters. She was the first woman to discover a comet (she discovered eight in total) and the first to have her work published by the Royal Society. She was also the first British woman to get paid for her scientific work, when William, who had been named the king's personal astronomer after his discovery of Uranus in 1781, persuaded his patron to reward his assistant with an annual salary. After William's death in 1822, Caroline retired to Hanover. There she continued her astronomical work, compiling a catalogue of nebulae—the Herschels' work had increased the number of known star clusters from 100 to 2,500. She died in 1848 at age 97 after receiving many honors in her field, including a gold medal from the Royal Astronomical Society.

Mary Somerville (1780 – 1872)

Intrigued by the x's and y's in the answer to a math question in a ladies' fashion magazine, 14-year-old Mary Fairfax of Scotland delved into the study of algebra and mathematics, defying her father's injunction against such pursuits. Her studies were sidetracked by a marriage, in 1804, to a Russian Navy captain, but after his death she returned to Edinburgh and became involved in intellectual circles, associating with people such as the writer Sir Walter Scott and the scientist John Playfair, and resumed her studies in math and science. Her next husband, William Somerville, whom she wed in 1812, supported these efforts, and after they moved to London, Mary became host to her own intellectual circle, which included the astronomer John Herschel and the inventor Charles Babbage. She began experimenting on magnetism and produced a series of writings on astronomy, chemistry, physics and mathematics. She translated astronomer Pierre-Simon Laplace's *The Mechanism of the Heavens* into English, and although she was unsatisfied with the result, it was used as a textbook for much of the next century. Somerville was one of the first two women, along with Caroline Herschel, to be named honorary members of the Royal Astronomical Society.

Mary Anning (1799 – 1847)

In 1811, Mary Anning's brother spotted what he thought was a crocodile skeleton in a seaside cliff near the family's Lyme Regis, England, home. He charged his 11-year-old sister with its recovery, and she eventually dug out a skull and 60 vertebrae, selling them to a private collector for £23. This find was no croc, though, and was eventually named *Ichthyosaurus*, the "fish-lizard." Thus began Anning's long career as a fossil hunter. In addition to ichthyosaurs, she found long-necked plesiosaurs, a pterodactyl and hundreds, possibly thousands, of other fossils that helped scientists to draw a picture of the marine world 200 million to 140 million years ago during the Jurassic. She had little formal education and so taught herself anatomy, geology, paleontology and scientific illustration. Scientists of the time traveled from as far away as New York City to Lyme Regis to consult and hunt for fossils with Anning.

Maria Mitchell (1818 – 1889)

Young Maria Mitchell learned to observe the stars from her father, who used stellar observations to check the accuracy of chronometers for Nantucket, Massachusetts, whalers and taught his children to use a sextant and reflecting telescope. When Mitchell was 12, she helped her father record the time of an eclipse. And at 17, she had already begun her own school for girls, teaching them science and math. But Mitchell rocketed to the forefront of American astronomy in 1847 when she

spotted a blurry streak—a comet—through her telescope. She was honored around the world, earning a medal from the king of Denmark, and became the first woman to be elected to the American Academy of Arts and Sciences. In 1857 Mitchell traveled to Europe, where she visited observatories and met with intellectuals, including Mary Somerville. Mitchell would write: "I could not help but admire [her] as a woman. The ascent of the steep and rugged path of science has not unfitted her for the drawing room circle; the hours of devotion to close study have not been incompatible with the duties of wife and mother." Mitchell became the first female astronomy professor in the United States, when she was hired by Vassar College in 1865. There she continued her observations, particularly those of the Sun, traveling up to 2,000 miles to witness an eclipse.

Lise Meitner (1878 – 1968)

When Lise Meitner finished school at age 14, she was barred from higher education, as were all girls in Austria. But, inspired by the discoveries of William Röntgen and Henri Becquerel, she was determined to study radioactivity. When she turned 21, women were finally allowed into Austrian universities. Two years of tutoring preceded her enrollment at the University of Vienna; there she excelled in math and physics and earned her doctorate in 1906. She wrote to Marie Curie, but there was no room for her in the Paris lab and so Meitner made her way to Berlin. There she collaborated with Otto Hahn on the study of radioactive elements, but as an Austrian Jewish woman (all three qualities were strikes against her), she was excluded from the main labs and lectures and allowed to work only in the basement. In 1912, the pair moved to a new university and Meitner had better lab facilities. Though their partnership was split up physically when she was forced to flee Nazi Germany in 1938, they continued to collaborate. Meitner continued her work in Sweden and after Hahn discovered that uranium atoms were split when bombarded with neutrons, she calculated the energy released in the reaction and named the phenomenon "nuclear fission." The discovery—which eventually led to the atomic bomb ("You must not blame scientists for the use to which war technicians have put our discoveries," Meitner would say in 1945)—won Hahn the Nobel Prize in 1944. Meitner, overlooked by the Nobel committee, refused to return to Germany after the war and continued her atomic research in Stockholm into her 80s.

Irène Curie-Joliot (1897 – 1956)

The elder daughter of Pierre and Marie Curie, Irène followed her parents' footsteps into the lab. The thesis for her 1925 doctor of science was on the alpha rays of polonium, one of the two elements her mother discovered. The next year, she married Frédéric Joliot, one of her mother's assistants at the Radium Institute in Paris. Irène and Frédéric continued their collaboration inside the laboratory, pursuing research on the structure of the atom. In 1934, they discovered artificial radioactivity by bombarding aluminum, boron and magnesium with alpha particles to produce isotopes of nitrogen, phosphorus, silicon and aluminum. They received the Nobel Prize in chemistry the next year, making Marie and Irène the first parent-child couple to have independently won Nobels. All those years working with radioactivity took a toll, however, and Irène died of leukemia in 1956.

Barbara McClintock (1902 – 1992)

While studying botany at Cornell University in the 1920s, Barbara McClintock got her first taste of genetics and was hooked. As she earned her undergraduate and graduate degrees and moved into postdoctoral work, she pioneered the study of genetics of maize (corn) cells. She pursued her research at universities in California, Missouri and Germany before finding a permanent home at Cold Spring Harbor in New York. It was there that, after observing the patterns of coloration of maize kernels over generations of plants, she determined that genes could move within and between chromosomes. The finding didn't fit in with conventional thinking on genetics, however, and was largely ignored; McClintock began studying the origins of maize in South America. But after improved molecular techniques that became available in the 1970s and early 1980s confirmed her theory and these "jumping genes" were found in microorganisms, insects and even humans, McClintock was awarded a Lasker Prize in 1981 and Nobel Prize in 1983.

Dorothy Hodgkin (1910 – 1994)

Dorothy Crowfoot (Hodgkin, after her 1937 marriage) was born in Cairo, Egypt, to a pair of British archaeologists. She was sent home to England for school, where she was one of only two girls who were allowed to study chemistry with the boys. At 18, she enrolled in one of Oxford's women's colleges and studied chemistry and then moved to Cambridge to study X-ray crystallography, a type of imaging that uses X-rays to determine a molecule's three-dimensional structure. She returned to Oxford in 1934, where she would spend most of her working life, teaching chemistry and using X-ray crystallography to study interesting biological molecules. She spent years perfecting the technique, for which she was awarded a Nobel Prize in 1964, and determined the structures of penicillin, vitamin B12 and insulin. In 2010, 16 years after her death, the British Royal Mail celebrated the 350th anniversary of the Royal Society by issuing stamps with the likenesses of 10 of the society's most illustrious members, including Isaac Newton and Benjamin Franklin; Hodgkin was the only woman in the group. The newspaper headline of the day read: *"Oxford Housewife Wins Nobel Prize"* when Dorothy Hodgkin won her Nobel prize.

Rosalind Franklin (1920 – 1958)

James Watson and Francis Crick get credit for determining the structure of DNA, but their discovery relied on the work of Rosalind Franklin. As a teenager in the 1930s, Franklin attended one of the few girls' schools in London that taught physics and chemistry, but when she told her father that she wanted to be a scientist, he rejected the idea. He eventually relented and she enrolled at Cambridge University, receiving a doctorate in physical chemistry. She learned techniques for X-ray crystallography while in Paris, returning to England in 1951 to work in the laboratory of John Randall at King's College, London. There she made X-ray images of DNA. She had nearly figured out the molecule's structure when Maurice Wilkins, another researcher in Randall's lab who was also studying DNA, showed one of Franklin's X-ray images to James Watson. Watson quickly figured out the structure was a double helix and, with Francis Crick, published the finding in the journal *Nature*. Watson, Crick and Wilkins won a Nobel Prize in 1962 for their discovery. Franklin, however, had died of ovarian cancer in 1958.

E-NEWSLETTER: Contact Maryjo Flamm-Miller to have information included in the next Cap & Gown newsletter. Of particular interest are announcement and reports from the various Study Groups and project committees. Please send updates to *maryjo56@roadrunner.com* or call her at 775-0233.