The Indianapolis Literary Club
2017-2018: 142th Year
"Romancing Plague"

Stephen J. Jay. Monday, 8:00 P.M., January Twenty-Second, 2018
Regular Meeting of the Indianapolis Literary Club, Park Tudor School.

To prevent plague: "take..pleasure with song and revel, sparing to satisfy no appetite, and to laugh and mock at no event, was the sovereign remedy for so great an evil"

G Boccaccio. The *Decameron*, 1348-1353, Proem, p.7

"It is well known that pestiferous fevers, phthisis…infect those who live with the sufferer, even though there is not actual contact."

---Fracastoro, 1546. In Litsios, *Plague Legends*, 2001

"These,.. (Romantic poets) will give the world another heart/And other pulses."

--J. Keats to Haydon, 20 Nov 1816, *Keats Letters Project*

Marguerite returned more beautiful than ever…her malady sleeping…not subdued… continued to give her…feverish desires…almost always...result of diseases of the chest."

–A. Dumas, *fils*, *Camille*. Chapter 2, 1848.

Virginia Poe coughed crimson blood on breast… "chalky pallor...haunted, liquid eyes charming"

--- E.A. Poe 1842. Dubos, *White Plague*, 1955. p55.

".. spotted maple leaves with .. greenish center and .. crimson border: Decay and disease are often beautiful, like the pearly tear of the shellfish and the hectic glow of consumption."

__ H.D. Thoreau, *Writing*s 1852. Torrey (ed.) 1906, p 91

Key Words:
Subjects: Romantic Era; Plagues; Tuberculosis; History of Science; The Paris School

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Stephen J. Jay M.D. 22 Jan 2018

Indianapolis Literary Club

January Twenty-Second, 2018
Stephen J. Jay, essayist
Romancing Plague

Introduction

America is a world leader in medical science. How did this come to be? One clue: since 1901, the U.S. has had 100 Nobel Prize winners in medicine. Germany, France and U.K. led the U.S. before WWII; since 1946, the U.S. has dominated the Prize. [129] Another clue: In 2016, all six U.S. medical Nobel winners were immigrants; thirty percent of all U.S. Laureates have been foreign born. Following WWII, America drew human capital from around the world and built a global engine for ethical medical research, guided by discovery, truth-seeking, the rule of law and the common good. My essay will explore the origins of medical research and will last about as-long-as one of Bob Ross's "Joy of Painting" PBS programs; I'll use a broad- brush sketch and add some of Ross's "Happy Little Clouds" along the way.

My aims are:

1. To trace the evolution of medicine from antiquity to the birth of clinical medical science in 19th c. Europe and America.
2. Summarize the role of the Paris School in the early 1800s that laid the foundations for modern medicine, research and public health.
3. To reflect on the fascinating Romantic Era, from 1750-1850, that shaped public values regarding science and medicine, specifically, the dreaded disease, consumption, also called the White Plague.

Antiquity

The foundation of medical science was laid 5000 years ago by Imhotep (2700 BCE), an Egyptian polymath, and physician who expressed the radical idea that disease could not be prevented with magic but only with science and observations. [82, 148] Also from Egypt came the earliest known medical science treatise, the Edwin Smith Papyrus (1600 BCE), from the Old Kingdom circa 3000 BCE—a text on trauma surgery with detailed reports of 48 cases, including anatomy, diagnosis, treatment and prognosis. [159]

As the Egyptian culture waned, Greeks created an unrivaled philosophical, artistic and scientific culture, led by Hippocrates of Cos (c. BCE 460-c. 370 BCE). As Greece declined, Roman medicine led by Galen, (CE 129-216) flourished for 1500 years. Tragically, most of Galen's writings were lost in the war when Caesar was forced to repel his enemy by using fire, which destroyed the Library of Alexandria and its museum, the shrine of the Muses (Mouseion). The surviving daughter library was later destroyed by the Christian Bishop, Theophilus, in his zeal to destroy paganism. The Roman Empire fell, in 476 CE, and it was through Arabic translations of ancient writings that Western Europe learned of Greek, Roman and Arabic medicine. [74, 124]

Middle Ages

Medicine in the Middle Ages (5th to 15th c.) was based on Hippocrates' teaching and contrary to common beliefs, these Dark Ages produced light, including, religious and secular hospitals; pharmacies; laws for medical education; experimental anatomy; eyeglasses; extraction of cataracts; antiseptics; dental amalgams for tooth fillings; the use of quarantine following the Black Death; and finally, Caesarean sections-the first success, a Swiss farmer operated on his wife: baby survived and lived to 77 years- mother had 5 more babies. [106, 107, 129] Medical stagnation in the Middle Ages did occur and was attributed to authoritarian politics and the Catholic Church that undermined science. But the Church provided care for the sick and handicapped that shaped future roles of religions in caring for needy people. The Dark Ages in Europe, coincided with a Golden Age in Arabic and Islamic medicine.[74] Arabic and Jewish scholars and Christian monks translated ancient writings into Latin, carrying the torch of science and learning to Western Europe as it emerged from the Middle Ages. The transmission of Greek philosophy and medicine was an ecumenical, international process, involving pagan, Christian, Muslim and Jewish sages. [35]

Renaissance

With the Renaissance in 14th to 17th c., the center of medical science again passed to Europe. [103, 129, 139] Physician scholars followed Greco-Roman traditions and taught also from the *Canon of Medicine* by the Persian, Avicenna. [119] The cultural and intellectual movement, humanism, developed and bred experimental science of Bacon, Copernicus, Galileo, and Newton; humanism in medicine led to advances in anatomy, physiology, surgery, dentistry and microbiology. Fracastoro wrote his famous poem, *Syphilis or the French Disease*, in 1530, in Verona, and followed, in 1546, with his contagion theory that disease is caused by "imperceptible particles", that pass from one to another, this 300 years before the germ theory was validated. [101, 53,72, 61, 131] Leonardo Da Vinci (1452-1519) pioneered study of the brain and nervous system. [132] Ambroise Pare, (1510-1590) the barber-surgeon who served four French monarchs, pioneered battlefield surgery; Antonie von Leeuwenhoek (1632-1723) developed a X 270 power microscope and discovered bacteria, sperm and blood cells. [98] Medical knowledge spread in book fairs, libraries, journals, newspapers and learned societies; empirical research created masterpieces like William Harvey's Anatomical Treatise: Motion of the Heart and Blood, 1628. The Swiss physician, Paracelsus (1493-1541), the "Luther of Medicine", laid foundations for modern pharmacy [3, 130] and Vesalius (1514-1564), a Belgian physician-anatomist created modern anatomy; 300 years after he died, Charles Darwin (1809-1882) used Vesalius's vast anatomical corpus to build the theory of evolution. [139, 170]

The Enlightenment

The Enlightenment of 17th and 18th c followed, and European politics, philosophy and science were reoriented. (16, 55) (Bristow, 2011) Reason guided problem-solving and acquired legitimacy but undermined authority of Church and State. [53, 184] Medical education and research

blossomed. James Lind (1716-1794), the Scottish physician and pioneer of naval hygiene, conducted the first clinical research trial, in 1747, aboard the *Salisbury,* a British Royal Navy 50-gun ship-of-war. He gave 12 sailors with scurvy six different diets: cider, vitriol (weak sulfuric acid), vinegar, sea water, a purgative and lemons and oranges. Scurvy improved within 6 days only in the two men given lemons and oranges; thus, the modern era of clinical research was born. The Royal Navy adopted this treatment fifty years later. [113, 114, 165] Edward Jenner, (1749-1823) an English physician and scientist demonstrated the efficacy of smallpox vaccination, in 1796.[140] In this Age of Reason, science began to lessen the relevance of mysticism, astrology, and alchemy. [72]

French Revolution (1787-1799)

The French Revolution of 1789, was, ironically, a sentinel event in the advancement of medical sciences. War casualties prompted creation of new surgical procedures and opportunities for medical education and research. [75] The "Old order," (ancien régime) of the political and social systems ended and power shifted from the nobility, clergy and the Third Estate (Tiers Etat). [62, 87, 88, 185] Outdated traditions were eliminated; new hospitals replaced medieval ones. [100, 138, 175, 181, 183] What precipitated the revolution? [6] French peasant landowners wanted to end feudalism; prosperous commoners -- the bourgeoisie-- wanted political power; and a burgeoning population of 26 million, in 1789, demanded change. Contentious ideas of the Enlightenment writers, Montesquieu, Voltaire and Rousseau, spread. [146] Expenditures on participation in the American Revolution, were bankrupting France, and increased taxes on nobles and clergy caused a backlash against the monarchy. The outcomes? The feudal regime was abolished; the *Declaration of the Rights of Man and of the Citizen* was issued. A constitution was written. But wars ensued in France and Europe, and five million civilians and soldiers were killed from 1792-1815. [78, 162, 179] In 1799, Napoleon Bonaparte became the leader of France, ending the Revolution but starting military rule that lasted 15 years, till the battle of Waterloo, in 1815, that ended centuries of Anglo-French wars. [123, 141, 185, 88]

Paris School circa late 1700s to early 1800s

The French Revolution caused major disruption in health services and science but spawned innovations. [31, 171, 177] For centuries, the Catholic Church controlled health care but the Revolution promoted ideas from the Enlightenment. Medicine became more scientific, hospitals more medical. Scientists, physicians, Paris academies, and reformers collaborated. The major hospitals in Paris (Hopital de la Charite; Hotel-Dieu de Paris) became teaching institutions, with bedside instruction and hands-on experiences. [17, 2] The revolutionary government promoted public health by strengthening education and research and separating religion and medicine. Power shifted from royal, religious, and private control, to a management of health services by the Paris Seine Department. [138] A system of triage, pharmacies, and municipal councils coordinated healthcare for 600,000 Parisians. Doctors cared for patients' well-being; hygienists provided public health.

The Paris School was created--a sentinel event in the history of medicine. [32, 42, 171, 188] A system of medical schools and twenty hospitals was organized; new roles for clinicians, nurses and researchers improved care for patients and the public's health. Leadership, innovative teachers and researchers, and political support to provide hospitals with patients and funds for research made it all possible. [171] Paris itself became "a patient" whose problems of pollution, elimination of waste and quality of food, air, and water, were researched, diagnosed, treated and prevented. [130, 176] How were these ambitious goals achieved? First, in 1801, Napoleon Bonaparte appointed Jean-Antoine Chaptal, (1756-1832) a preeminent chemist and physician, as Minister of the Interior. He modernized education and practice. Ironically, Chaptal's value to France as an expert in gunpowder saved him from the guillotine. Second, the Paris School appointed the famous European physician, Jean Nicolas Corvisart to reform health professions, requiring all practitioners be certified. [42, 31, 21, 68, 100, 171]

When Corvisart agreed to practice at Necker Hospital (Hopital Necker) in Paris, he was told by superiors to wear a wig while making rounds; he refused, stating that "respect for outward signs must not degenerate into superstition." [42] His independent thinking drew the attention of Napoleon Bonaparte, [141] who made Corvisart the First physician of the Imperial Household Medical Service, his salary, 50,000 francs. [42, 70, 100] This began a personal friendship that lasted throughout their lives. [70] The students of Corvisart and Chaptal's excelled. Dr. Dupuytren, a military surgeon best known for treating Napoleon Bonaparte's hemorrhoids, was called "the most erudite and accomplished surgeon in Europe" in the 19th c. [60] Rene Laennec revolutionized knowledge about the disease called, *consumption*. [42, 34, 36, 64, 95, 122, 146a] The Paris School became a world's center of medical innovation. [171]

Creation of the scientific basis for tuberculosis

In the early 1800s, the disease, *consumption,* caused one in five deaths in Europe. Corvisart's faculty pioneered research in *consumption*, and Rene Laennec (1781-1826), who invented the stethoscope, in 1816, showed clinicians how to aid their diagnosis by listening for abnormal breath sounds in consumptives. [33, 34, 36, 64, 94, 143] Laennec's 'unity theory,' (1804) [146a] posited that the confusing illnesses called consumption, phthisis, and scrofula, were one in the same disease, caused by the tubercle, (Latin tuberculum or small lump) the tiny nodules in tissues 0.5 to 3.0 mm, that were seen under the microscope by Laennec and first observed by the Dutch anatomist, Sylvius. [76] With Laennec's stethoscope and Corvisart's leadership in advocating physical examinations in patients, clinicians in Europe, North America and world-wide adopted these techniques, [42] and clinical-pathological correlation was born. Today it's the foundation of clinical medicine and research. [31] Laennec's 'unity theory' and research were catalysts for historic 19th c advancements in the science, particularly the science of consumption. The next milestone occurred when Johann Lukas Schonlein (1793-1864), a prominent German physician and nosologist, renamed consumption*, tuberculosis*, in 1829, [36, 64] (possibly as early as 1821). [84] Laennec and Schonlein's innovations prompted the so-called 'medicalization' of *consumption*, the viewing of the disease, based on science, as a newly defined medical problem. [104] The dominoes began to fall. Science generated new ideas and terminology; in turn, perceptions of the disease changed. By 1867, the French researcher, Villemin, [173] proved that tuberculosis was

transmitted person-to-person. The brilliant German scientist, Robert Koch, (pron = ober koh) announced in 1882 (Berlin Society of Physiology) that he had discovered the germ that caused tuberculosis—he named it, *Mycobacterium tuberculosis.* [20, 91, 92, 93]

Romantic Era

The evolution of science in medicine since antiquity has been complicated by competing theories, epidemics, and the Dark Ages, with fits and starts, but steady advances, as if the march of medical science has been relatively immune from natural and societal disruptions. [105]

The Black Death created explosive epidemics and horror in communities, while tuberculosis was an unpredictable predator. [11, 34, 36] Both scourges profoundly shaped the mood and discourse of societies. [40, 186] Oliver Wendell Holmes, Sr., invented the scary synonym for consumption, the *Great White Plague of the North*, [42, 57] which appeared in his Pr*ofessor's Story*, in *The Atlantic Monthly,* in 1860 and in his psychological thriller, *Elsie Venner,* in 1861. [79, 82] Holmes also created a term for Boston's elite class, "Boston Brahmins," that included, in addition to Holmes, Henry Wadsworth Longfellow and James Russell Lowell, all wealthy, Harvard educated, and contributors to America's Romantic Era literature. [1, 80] Views about the disease, consumption, were profoundly influenced in Europe, America and beyond, during this Era, reflected in poetry, literature, the arts, music, history, and politics. [59, 109, 145]

Romantic Era Early Proponents: (c. 1750-1850)

The Romantic Era spanned from mid-1700s in Europe to the mid-1800s in Europe, Russia and Asia. It was adapted to America's literary culture in the early 1800s. [10, 42, 34, 51, 53, 58, 64, 66&67, 96, 83, 99, 102, 118, 121, 135&136, 160, 163 ,178] Karl Wilhelm Friedrich Schlegel, (1772-1829) a German poet, proposed a distinction between the "organic" qualities of Romantic art and the "mechanical" features of Classicism. [51, 147] Johann von Goethe (1749-1832) is considered the unsurpassed representative of the Romantic Movement. [54] Romantic ideas in medicine came from Scotland's, John Hunter, (1728-1793) who said, "Life as a principle is not reducible to material constructs." In England, William Blake (1757-1827), William Wordsworth (1770-1850) and Samuel Taylor Coleridge (1772-1834) were leaders, and in Scotland, Sir Walter Scott. In America, romanticism and neo-romanticism into the 1900s is reflected in writings of Washington Irving, (1783-1859) *Rip van Winkle* (1819)*,* for example, and James Fennimore Cooper's (1789-1851) *The Last of the Mohicans*. (1826) Ralph Waldo Emerson, (1803-1882) inspired the transcendentalist movement, while Hawthorne (1804-1864), Melville (1819-1891) Whitman (1819-1892), Dickenson (1830-1886), Poe (1809-1849), and Robert Louis Stevenson created remarkable literary legacies. [49, 50, 51, 73, 77, 134, 163, 52, 158]

Romantic Era Origins and Roots:

The stimulus for the Romantic Era included the social turmoil of revolutions and epidemics. [51, 53] Enlightenment ideas of reason conflicted with anti-Enlightenment expressions: emotion and passion, whose aims were to lesson suffering. Jean-Jacque Rousseau said: "Man is born free, and

everywhere he is in chains." [59] To Romantics, science chilled humanity by mechanizing the mind. They denounced exploitation of the poor, urged society to follow ideals, not rules, and celebrated individualism. [89]

Ancient Romantics

Were these ideas new to the Romantic Era? No, their roots are found in medieval bards' storytelling. Boccaccio's 14th c. masterpiece, the *Decameron*, was written in 1349, (1349-1353) shortly after the 1348 plague in Florence killed 100,000. [8,142] Its 100 stories featured escapism and fanciful events; the gardens connected nature and passion, pleasure and love. Drawing on traditions of Dante and Ovid, Boccaccio offered Florentines a blissful alternative to grim reality. With Petrarch, the lyrical poet, Boccaccio laid foundations for Humanism that shaped experimental science of the Renaissance and Enlightenment [53] and Romantic Era, when medievalism and naturalism meshed. [10, 9, 13, 27&28]

Romantic poets and writers

Leading 18th c poets thought the Renaissance and Enlightenment had brought society tyrants and wars; people found solace in romanticism. The poet, painter and print-maker, William Blake (1757-1827), said of the Romantic sentiments (1793): "a new heaven is begun," and he posited that "One power alone makes a poet: imagination, the 'Devine Vision.' [7] John Keats, said of Romantic poets: "These, these will give the world another heart/And other pulses." [51, 86, 172] Wordsworth expressed the power of "spontaneous overflow of feelings." [51, 47, 69, 115] The disease, *consumption,* was romanticized for several reasons. [182] Many preeminent authors, poets, artists and musicians suffered from *consumption*, which was called the "robber of youth." [64] Byron, on looking in a mirror, remarked "I should like, I think, to die of a consumption… because then all the women would say 'See that poor Byron – how interesting he looks in dying.'" [19] The famous Davidson sisters, Lucretia and Margaret of Plattsburgh, NY, produced strange romantic poems before they each died of consumption before age 20. [108] The poets Washington Irving, Robert Southey and Edgar Allan Poe said the sisters symbolized poetic fire, "regarding consumptive death as a fitting climax to their genius." [42]

Fear of consumption caused gloom, spawned the "graveyard school" of poetry where nature metaphors, autumn, falling leaves and winter depicted melancholy expressions of a youth's pending doom. To Percy Bysshe Shelley, fall became disease and death in *Ode to the West Wind*.

> "O Wild West Wind, thou breath of Autumn being,
> Thou, from whose unseen presence the leaves dead
> Are driven, like ghosts from an enchanter fleeing,
> Yellow, and Black, and pale, and hectic red, Pestilence-stricken multitudes…"
> (From Shelley, Percy Bysshe, *Ode to the West Wind*, 1819) [150]

Henry David Thoreau, after seeing the first spotted maple leaves with a greenish center and a crimson border noted that "Decay and disease are often beautiful, like the pearly tear of the shellfish and the hectic glow of consumption." [168]

Romanticized consumption was gender specific: men were creative, women beautiful, often thin, pale, passive, spiritualized—called by one author: "the aestheticization and sexualization of consumptive femininity". [19, 46, 96] Poe described his consumptive child- wife, first cousin, Virginia, as "delicately, morbidly angelic." (Figure 1) While singing and playing the harp at a party, she clutched her throat- crimson blood ran down her breast. [158] Poe thought her symptoms non-serious and described her as more ethereal; her "chalky pallor and haunted, liquid eyes were charming." She died at 24 years. [42, 57, 77, 158] Consumption was often revered, not feared. [102]

Literary works romanticized consumption. In, *David Copperfield,* Little Blossom, "dies gracefully, almost without symptoms" and in *Dombey and Son,* Paul, the child, "gently floats out to sea"; in *The Old Curiosity Shop*: "Dear, gentle, patient, noble Little Nell was dead. Her little bird… stirring nimbly in its cage; and the strong heart of its child-mistress was mute and motionless forever." To Charles Dickens, consumption was a metaphor for social and economic pathology. [5, 12, 42, 97, 167] Other memorable consumptives: Frances Earnshaw, Edgar and Linton, in Emily Bronte's *Wuthering Heights*; Helen Burns, in Charlotte Bronte's *Jane Eyre* (1847); Camille, the contagious, courtesan seductress in Alexander Dumas', *fils,* play, *La Dame aux Camelias* (1848); Violetta, in Verdi's *La Traviata*; Mimi, in Puccini's La boheme and the tragic Fantine, in Victor Hugo's, *Les Miserables*. (1862) [75] In, *Uncle Tom's Cabin,* (1852) Harriet Beecher Stowe poignantly describes Little Eva: "For so bright and placid was the farewell voyage of the little spirit-- by such sweet and fragrant breezes was the small bark borne towards the heavenly shores…The child felt no pain, only a tranquil soft weakness ….. so loving, so trustful, so happy…soothing influence of innocence and peace that seemed to breathe all around her…." [160, 164]

Bram Stoker's, *Dracula,* (1897) also abounds with consumptive imagery; and throughout history, symptoms and cures of vampirism and consumption were often conflated. [22, 96] *Camille*, or *La Dame aux Camelias*, is a popular expression of what Susan Sontag called "the sentimental fantasy of tuberculosis." [161] Marguerite Gautier, a courtesan or "kept woman", was slender and physically fragile, pale, languid with feverish desires; emotionally sensitive but creative and sexually passionate. (Figure 2) Her symptoms and signs enhanced her attractiveness for her lover, Armand, and evoked sympathy from others. [43, 44&45] Sontag decried "wrapping consumption in metaphors"; but others disagreed, saying that symbolic language may help people assuage suffering. [4]

Romantic Era abroad

Literary impacts of the Romantic Movement may be found in Asia and Russia. [66&67] Anton Chekhov, the Russian playwright and physician died at 44 of tuberculosis [39] and wrote of consumptive, Vladimir Ivanych, in the *The Story of Nobody* [167] and in, *Gusev,* both Gusev and Paul Ivanovich died of the disease. [24] Katerina Ivanona, in Dostoevsky's *Crime and Punishment*, and

Nastasya Filipovna, in *The Idiot*, were consumptives, modeled after Dostoevsky's mother, Maria, who died of tuberculosis. [41]

Romantic Era music

The literary innovations of the Romantic Era were mirrored in novel freedom of form and design of its music, lyrical melodies, chromatic harmonies and discords [42] of Chopin, Mendelssohn, Berlioz, Liszt, Brahms, Schuman, Wagner, Beethoven, Verdi, among others. As with writers, many musicians were consumptive; Chopin, only 39, died of it, in 1849; Paganini, Purcell, and Stravinsky suffered similar fates. [26, 42, 137, 145]

Romantic art

Many famous artists and printmakers romanticized their images. [37, 38] Such depictions were not unique to the Romantic Era. For example, Sandro Botticelli, the 15th c., Renaissance Florentine artist, [14] painted the iconic, *Birth of Venus*, the nude, newly born goddess, pale, with elongated body and neck. (Figure 3) Scholars suggest that Botticelli was in love with Simonetta Vespucci, the legendary beauty of Florentine, Italy, who died of consumption at 23, in 1476. Botticelli's memory of his consumptive lover's figure may have guided his creation of Venus a decade later. [15]

In 18th c. Romantic Era art, pale women with pink cheeks from consumptive fever equaled ephemeral beauty. [18, 19] The Louvre and Metropolitan Museum of Art feature many consumptives. The Tate Museum in London has the famous painting of this Era, John Everett Millais', pre-Raphaelite (pron: rafalite:) image (1852) depicting the drowned Ophelia, from *Hamlet*. [112] (Figure 4) The model for this image was Elizabeth (Lizzie) Siddal. (1834-62) (Figure 5) Called a "Pre-Raphaelite Supermodel," Siddal was a favorite of Victorian painters; Dante Gabriel Rossetti (1828-82) loved and lived with Lizzie, who was herself an artist and well- known in Queen Victoria's Britain. Tall, thin, beautiful, with long- neck, pale face and copper colored hair, Siddal frequented Rosseti's paintings. [155, 156, 157] Her chronic disease and death were consistent with tuberculosis and suicide by laudanum. Scholars believe Siddal inspired Bram Stoker's character in Dracula, Lucy Westenra, in whom Stoker conflated symptoms of vampirism and consumption. [19] Bram Stoker's, *Dracula,* (1897) also abounds with consumptive imagery; and throughout history, symptoms and cures of vampirism and consumption were often conflated. Stoker was a neighbor of Rossetti and may have influenced Rossetti to exhume Siddal seven years after she died, to retrieve from her coffin his unpublished poems. Rossetti had known interest in vampirism. [22, 85, 96,133, 149, 166] Recently, the popular actresses, Nicole Kidman, (Figure 6) and Emma West, (Figure 7) have played leading roles of consumptive women looking remarkably like Rossetti's images of Lizzie Siddal. [154]

Amedeo Modigliani, the Italian-Parisian, painted iconic, long-necked, often nude women; he often featured his common-law wife, Jeanne Hebuterne (Figure 8) *(pron. Jaunn ebuterna)* but never in the nude. The day after Modigliani died of tuberculosis at 35, Hebuterne, 21, five months pregnant, fell from a fifth story window, in a suicide. [111, 116, 117]

Images of romanticized consumptive women were created by some of the greatest portrait painters of the day. England's Thomas Gainsborough and Sir Joshua Reynolds frequently painted Elizabeth Ann Linley Sheridan, a legendary soprano and favorite of King George III.

> *Reynolds is seen in Indianapolis Literary Club's stipple engraving, A Literary Party at Sir Joshua Reynolds (1848) by William Walker from a picture by James E. Doyle. (189) (YaleUnivLib) See S.Jay, ILC essay: "Art in the blood is liable to take the strangest forms" 20 Jan 2009.*

Sheridan was a member of the mid-18th c. Blue Stockings Society, a literary club of intellectual women in Britain and she was one of nine muses in the Temple of Apollo, [126] featured in a painting (1778), by Richard Samuel that hangs in London's National Portrait Gallery. (Figure 9) [125,152] Thin, pale, and with a wistful, beautifully melancholic countenance, Eliza died of consumption in 1792 at 38, described as a "withering flower gliding gently down to the grave, diffusing around her as she fades an atmosphere of increasing sweetness." [23]

Famous sculptors also romanticized their work. Francois Rude's *Neapolitan Fisherboy* in the Louvre and his *Departure of the Volunteers* at the Arc de Triomphe, in Paris, are incomparable romantic sculptures. America's great artist, Daniel Chester French, commissioned (1883) to create a statue of John Harvard, found no pictures of Harvard and said: "… it is recorded that he (Harvard) died at the age of about thirty of consumption…. It is fair to assume that his face would be delicate in modeling and sensitive in expression." [169, 110] French's sculpture in Harvard Yard reflects such aesthetic features.

Many poets, writers and artists and musicians who were not consumptive sought to look so in the Romantic Era. [121, 160] Theophile Gautier, the French Romantic poet and critic said he "could not have accepted as a lyrical poet anyone weighing more than ninety-nine pounds." [42, 161] Young women starved, drank lemon juice and vinegar and ate sand to kill their appetite. Anemia with pallor resulted. [42] If they suffered lung hemorrhaging or blood-letting, this added to their aesthetic look. This *consumptive chic* peaked in the mid-1800s, with corsets that showed waifish waists and voluminous skirts that emphasized thin physiques. [37, 121, 38] Who can forget the 20th c. version of the *consumptive chic*, Kate Moss, in Calvin Klein underwear ads, featuring an emaciated, androgynous, "heroin chic" or "wasted addict" image popular then and in some places popular today? [48, 120, 187]

Finally, I searched, without success, for literature regarding the impact of romanticizing consumption on Indiana writers: Dreiser, Porter, Riley, Tarkington and others. The influence of this Era, however, is evident in James Whitcomb Riley's poems, (1849-1916) which were endorsed by Romantic authors Henry Wadsworth Longfellow and James Russell Lowell. [47] Riley, himself, supported the young African American poet, Paul Laurence Dunbar, whose writings reflected the influence of romanticism. As an aside, Dunbar's poem, Sympathy ("I know what a caged bird feels") may be a metaphor for his fatal tuberculosis.

Science progresses, romantic era fades

As the Romantic Era's portrayal of consumptives faded in the late 1800s, public attitudes adjusted to the idea that tuberculosis was neither mysterious nor romantic, but an infectious disease. [42, 90, 96, 127, 153] This reality spurred science and public health innovations to prevent the disease and find a cure. [30, 36] The advancing science of tuberculosis transformed Western society. [118] The wearing of flowing skirts and tight corsets was discouraged; the former was thought to harbor germs; the latter to limit lung healing. [56, 63, 121] (Figure 10) On the positive side, advances in understanding created a more informed public that could make better decisions about their personal care and support of public health efforts. But many changes were problematic. The tuberculous moved from their homes to sanatoria. Laws, often discriminatory, were passed. Married patients slept in separate beds and were counseled not to have children. Treatments, often no more than quackery, were sold, and life insurance policies excluded benefits. Medicalization spurred unproven treatments such as disfiguring chest surgery that lasted decades before science proved its limitations. Undue emphasis on science detracted from considering the important social determinants of tuberculosis. In the famous book, *White Plague* (1952), Jean and Rene Dubos, said that "tuberculosis is a social disease that presents problems that transcend the traditional medical science approach." [42]

This problem persists today. TB is both preventable and curable and is a leading cause of infectious disease globally, causing 1.5 million deaths each year; the poor are disproportionately affected. The good news: TB rates globally have fallen 1.5% per year since 2000. [180] In 2016, in the U.S., 9,287 cases of TB were reported, an incidence 2.9/100,000 population, the lowest since TB reporting began, in 1953. [29] In Indiana, our case rate is 1.7/100,000 (109 cases in 2016). The global rate is 140. North Korea's rate is 561, according to the World Bank.

In conclusion, medical science, has evolved from antiquity to the present, with setbacks, but inexorably forward--a miracle of humankind's urge to discover and relieve suffering. The foundations of modern clinical medicine and research were laid in France, when leaders at the Paris School created a blueprint that shaped how medicine is practiced and researched today. The 19th c. Romantic Era profoundly affected science and attitudes about consumption, but following the discovery of the cause of tuberculosis, in 1882, this Era faded, as clinical science gained stature in the early 20th c.

For more than a century, America's vision and actions have spurred international collaboration in advancing the health sciences, with discoveries of how to, prevent, diagnose and treat disease, relieve suffering and enhance quality of life. Americans and the global community have benefited greatly from this leadership. But, in January 2018, amid very unsettled times, our sobering challenge is to reflect on how we can right our listing ship of discovery to both sustain and advance America's central role in promoting health of Americans and the global community. [93.a]

End essay: SJJ 22 Jan 2018, Indianapolis Literary Club, 142st year.

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Acknowledgments

I am grateful to many persons who aided my research for this essay over several years: archivists, librarians, scholars, and authors, both past and present, who have contributed to the literature of the history of science, tuberculosis and the romanticization of tuberculosis during the Romantic Era (c. 1750-1850).

- Angela Courtney, Head of Arts and Humanities, Librarian for English and American Literature Librarian Arts & Humanities, Herman B Wells Library. Indiana University, searched (2017) for references regarding the impact of the Romantic Era on Hoosier authors, with emphasis on examples of the romanticization of consumption. No specific examples were found for Indiana authors, Dreiser, Porter, Riley, Tarkington, and others ……but the search continues. This topic has apparently not been the focus of scholarly research.
- Angela Courtney, Librarian for English and American Literature, Theater, Philosophy, and Film Studies, Herman B. Wells Library, Indiana University, searched in 2014 London Times archives for references to "spes phthisica" (the hopeful consumptive) and Elizabeth (Linley) Sheridan, the legendary soprano, favorite of King George III and a member of Blue Stockings Society, one of nine muses in the Temple of Apollo featured in 1778 painting by Richard Samuel that hangs in London's National Portrait Gallery.
- Ruth Lilly Medical Library staff have for several years graciously accessed resources for my research. They include the following: Nancy L. Eckerman, Ruth Lilly Medical Library, Special Collections/History of Medicine and Nursing, Indiana University School of Medicine, (retired) and Kellie Kaneshiro, Sue London, Tom Emmett, and Mike Wilkinson. The RLML interlibrary staff: Michael Wilkinson and Sherry Kieper processed innumerable interlibrary loan orders. Mr. Emmett researched the origins of Rene Laennec's first description of the Unity Theory of tuberculosis and led me to Hathi Trust digital library and Alfred Rouxeau's book, Laennec apres 1806. 1806-1826, D'Apres des documents inedit (After unpublished documents) and page 67 where March 1804 is cited as the "La date est a retenir" (The date to remember) when Laennec described that the phenotypes of consumption or phthisis were one disease (caused by the tubercle) not different diseases. This was a milestone in the history of the science of tuberculosis in the 19th c.

- Bethany Flechter, Rare Books and Manuscripts Supervisor, Indiana State Library, Indianapolis bfiechter@library.in.gov forwarded my request to staff, Brittany Kropf, Rare Books and Manuscripts Librarian who reported on her review of American Lung Association of Central Indiana. She found no references regarding Indiana 19th c authors using romantic language to describe tuberculosis.
- Steve E. Towne, Past President of Indianapolis Literary Club (2016-17), American Civil War Historian and Associate University Archivist, Indiana University Purdue University Indianapolis, Ruth Lilly Special Collections and Archives, kindly provided input on the possible impact of the Romantic Era on Hoosier writers, poets, composers and artists. He found nil information. Perhaps Angela Courtney and Steve Towne's findings will spur research in this area of inquiry into Indiana Literary History.
- Richard M. Fairbanks School of Public Health and IUSM (Deans Halverson and Hess) have kindly supported my colleagues and my research into the Language of Tuberculosis, 19th c Europe and North America (Germany, France, Italy, U.K and U.S). Our study of language, culture and history employs a new method of inquiry, Culturomics, by its creators Harvard scientists, Drs. Michel and Aiden. The technology supports searching "big data"- millions of digitized books.
- Research colleagues. My colleagues include researchers: Johanna Bleker, MD, PhD, historian, Institute for History of Medicine, Charite Medical University; Berlin; Giles Hoyt, PhD, Director emeritus, IUPUI Max Kade German-American Center, historian and linguist IUPUI, and long-time member and past- president of Indianapolis Literary Club; and from Fairbanks School of Public Health, John Woods PhD, Adj. Professor and Health Services research; Uzay Kirbiyik, MD, PhD candidate (epidemiology); Greg Steele, PhD, Prof. epidemiology, and excellent past public health graduate students (MPH): Paridha Gupta, MPH and Rovane Schwengber, MPH. Our research manuscript will be submitted to an international peer-reviewed journal in December 2017.

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