

**EMD
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MATERIALS**

Historical Milestones

Our transformation from a pharmacy in 1668 into a global science and technology company

13 Milestones



1668: Friedrich Jacob Merck receives a privilege for a pharmacy in Darmstadt

Following an apprenticeship at City Hall Pharmacy, Friedrich Jacob Merck leaves his home town Schweinfurt in 1641. Documents prove that he is the acting pharmacist of the Court Pharmacy in Danzig and owns a pharmacy in Wesselburen, a city in the present-day northern German federal state of Schleswig-Holstein. In the 1660s, he comes to Darmstadt, where he takes over the pharmacy located on Schlossgraben. This is to become the historic core of the world's oldest pharmaceutical and chemical company. A distinction is made between vegetable and mineral medical preparations (*vegetabilia* and *mineralia*) as well as *animalia* from humans and animals. Multi-ingredient remedies are referred to as *composita*. The formulations are still often not precise and the specifications are not uniform: Preparation remains an empirical art for a long time.

	<p>The pharmacy at the Schlossgraben in Darmstadt (second building from left), ca. 1661</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS1.1)</p>
	<p>Friedrich Jacob Merck requests a license to run his pharmacy, signature, 1668</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS1.2)</p>
	<p>"Friderich Jacob Mercken, apothecary from Schweinfurth" receives a license to run a pharmacy from the ruling court on August 26, 1668</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS1.3)</p>
	<p>A pharmacy dispensary, ca. 1700</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS1.4)</p>






1741: Johann Heinrich Merck is born, a friend of Goethe

Many interests, internationally esteemed

In the 18th century, famous members of the Merck family include not only successful pharmacists. Born in 1741, Johann Heinrich, brother of the pharmacist Johann Justus Merck, is a writer, natural scientist as well as an art and literature critic. For Johann Wolfgang (von) Goethe, he remains a lifelong mentor, as a critic and publisher of his early texts, first and foremost "Götz von Berlichingen," then as a scientific advisor in the 1780s. "To recognize what holds the world together from within", Johann Heinrich Merck competently familiarizes himself with areas that are still in their infancy as academic disciplines: chemistry, mineralogy, paleontology, comparative anatomy.



Internationally, Johann Heinrich Merck is highly respected for his paleontology studies. He is appointed to scientific societies in Homburg, Kassel, Lausanne, and Prague. His research work is both inexhaustible and diverse. For instance, the first balloon voyages in Darmstadt motivate him to find a way to manufacture inflammable air – together with his nephew Johann Anton Merck.





	<p>Johann Heinrich Merck (1741-1791)</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS2.1)</p>
	<p>Left: The "Giraffe proof", of which Johann Heinrich Merck commissions an etching and sends to Goethe in January 1785.</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS2.2)</p> <p>Right: In his "Bone letters", Johann Heinrich Merck describes elephant and rhinoceros fossils in 1786.</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS2.3)</p>



3 1827: Emanuel Merck: From a pharmacy craft to a research-based industrial company

Emanuel Merck comes of age in a period of major transformation. His education was of a similarly thorough and academic nature to that of his father. At the private institute of Johann Bartholomäus Trommsdorff and various universities, he conducts research into the chemistry of natural plant substances. In the pharmacy laboratory, he succeeds in preparing pure alkaloids, a class of highly effective plant constituents that the scientific community was particularly interested in due to their medicinal effect. The presentation of the 'Cabinet of Novelties' represents an initial milestone in the transformation from pharmacy handcraft to a research-based industrial company. Among chemists, physicians and pharmacists he wanted his collection of alkaloids and notebook to "increase the general knowledge of this class of remedies [...]" and "enable them to test these substances at little cost".

	<p>Raw opium, the basic ingredient for the production of morphine. In 1805, Friedrich Wilhelm Sertürner publishes in Paderborn his discovery of morphine – the basis for Emanuel Merck's future alkaloid research.</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.1)</p>
	<p>Emanuel Merck (1794-1855) takes over his father's pharmacy in 1816</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.2)</p>

	<p>Supplement to the 'Cabinet of Novelties', a collection of high-purity alkaloids that Emanuel Merck offers for sale in 1827 „Pharmaceutisch-chemisches Novitäten-Cabinet“, excerpt, 1827</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.3)</p>
	<p>Supplement to the 'Cabinet of Novelties', a collection of high-purity alkaloids that Emanuel Merck offers for sale in 1827 „Pharmaceutisch-chemisches Novitäten-Cabinet“, excerpt, 1827</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.4)</p>
	<p>Alkaloid collection, ca. 1838; Emanuel Merck also gives Justus Liebig such a collection of this kind for his laboratory in Munich.</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.5)</p>
	<p>Microscope assumed to be the property of Emanuel Merck</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS3.6)</p>





1850: The business partnership E. Merck, Darmstadt, Germany: Responsibility is shared

In order to ensure the continued existence of his company, Emanuel Merck establishes the partnership E. Merck, Darmstadt, Germany together with his sons. As of 1856, the youngest son Wilhelm actively takes part. As a businessman, pharmacist, and chemist, the three brothers shape the company together. The partnership is characterized by a growing workforce and the expansion of the product range. The company previously managed and run by one person becomes an enterprise with multiple partners.

	<p>Wilhelm, Georg and Carl Merck</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS4.1)</p>
	<p>Excerpt from a letter from Emanuel Merck to his son Georg dated May 16, 1842, in which he seeks to motivate him to make greater achievements</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS4.2)</p>
	<p>Excerpt from the partnership agreement dated 1850</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS4.3)</p>





1879: Business contacts on all continents

E. Merck, Darmstadt, Germany has been operating internationally since the 1820s. Initially, the company's international business dealings are mainly with other German-speaking countries. In the mid-19th century, E. Merck, Darmstadt, Germany starts expanding globally. From its base in Europe, E. Merck, Darmstadt, Germany establishes business contacts to Asia (1832), North America (1845), South America (1851), Africa (1867), and lastly Australia (1879).




	<p>Business ledger with the entry "J. D. Specht in St. Petersburg", 1832</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS5.1)</p>
	<p>Business ledger with the entry "Gustav Loewig & Cie. in New York", 1845</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS5.2)</p>
	<p>Business ledger with the entry "Wilhelm Schaffner in Orizava", 1851</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS5.3)</p>
	<p>Business ledger with the entry: "Leop. Stross in Cairo", 1867</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS5.4)</p>
	<p>Award for E. Merck, Darmstadt, Germany at the Sydney International Exhibition, 1879</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS5.5)</p>





1904: "The new factory is three-quarters of an hour from the center of the city..."

At the end of the 19th century E. Merck, Darmstadt, Germany has no further expansion possibilities in Darmstadt. The densely built up factory premises is surrounded by the rapidly growing city. By 1904, the entire factory is moved to its present-day location on Frankfurter Strasse and considerably expanded at the same time.

	<p>The new factory in Darmstadt, Germany on March 14, 1913</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS6.1)</p>
	<p>Laboratory, 1920s</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS6.2)</p>
	<p>The main entrance gate ca. 1923</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS6.3)</p>





1917: The U. S. subsidiary Merck & Co. is expropriated and has been an independent company since then

As a consequence of World War I, the company loses its subsidiaries abroad, including its U.S. subsidiary Merck & Co. founded in 1890. Merck & Co. Inc., New Jersey, USA becomes an independent U.S. company.

	<p>Cover page of the final report of the United States Senate on the expropriation of Merck & Co. USA pursuant to the Trading with the Enemy Act of 1919</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS7.1)</p>
	<p>American subsidiary New York, 1895 (picture: Merck KGaA, Darmstadt, Germany_350_MS7.3)</p>
	<p>The pharmacy in New York, 1898</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS7.4)</p>
	<p>Delivery vehicle of the American subsidiary, no date given</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS7.5)</p>





1995: Establishment of Merck KGaA, Darmstadt, Germany and public listing

The lengthy growth process and the associated increasing capital requirements lead to structural changes. Merck KGaA, Darmstadt, Germany a corporation with general partners, is formed in 1995. With a volume of DM 2.4 billion, this represents the largest public offering in German history at that time. The operating business is run by Merck KGaA, Darmstadt, Germany. Via the general partner E. Merck KG, Darmstadt, Germany the family holds the capital majority.



First day of trading, October 20th, 1995

(picture: Merck KGaA, Darmstadt, Germany_350_MS8.1)



2000: Change in the leadership of the company

Professor Dr. Hans Joachim Langmann retires as Chairman of the Executive Board. He shaped the transformation from a predominantly German company into an international corporate group. Since then, no member of the Merck family has managed the operating business of Merck KGaA, Darmstadt, Germany.





Fifth Annual General Meeting of Merck KGaA, Darmstadt, Germany, 2000

(picture: Merck KGaA, Darmstadt, Germany_350_MS9.1)



10 2007: Acquisition of Serono

In 2007, Merck KGaA, Darmstadt, Germany succeeds with the transformational Serono acquisition. With a purchase price of € 10.3 billion, this was the largest acquisition that the company had ever made. In 1999, Serono opened its Biotech Center in Corsier-sur-Vevey on Lake Geneva, one of the world’s largest and most modern biotech facilities. In 2007, Merck KGaA, Darmstadt, Germany begins expanding its biopharmaceutical production facilities, primarily for the latest generation of biological active ingredients for oncology. Merck KGaA, Darmstadt, Germany thus becomes a leading biotech company.



	<p>Production facilities in Corsier-sur-Vevey, 2007</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS10.1)</p>
	<p>The head of biotechnological production in Corsier-sur-Vevey, inspecting the contents of a 2,500-liter bioreactor, 2007</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS10.2)</p>





2010: Millipore acquisition

With the acquisition of the Millipore Corporation a leading life science company headquartered in Billerica, Massachusetts, Merck KGaA, Darmstadt, Germany continues its strategy of focusing on profitable, high-growth specialty products and expanding its U.S. presence. In addition, the acquisition provides a better balance between the pharmaceuticals and chemicals businesses at Group level. The combination creates a € 2.1 billion world-class partner to the life science industry.

	<p>A Millipore pilot plant, 1965</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS11.1)</p>
	<p>Millipore Board of Directors Meeting, 1970</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS11.2)</p>





2015: Acquisition of Sigma-Aldrich

Merck KGaA, Darmstadt, Germany, acquires Sigma-Aldrich and thus extends its position as a leading company in the Life Science industry. The new company offers their customers over 300,000 products through a leading e-commerce platform. In North America, the company is named MilliporeSigma. The acquisition increased knowledge of end-to-end solutions and created the CRISPR epigenetic activator for precise genome targeting.



Aldrich, Warehouse for chemical substances, no date

(picture: Merck KGaA, Darmstadt,
Germany_350_MS12.1)





2018: The company celebrates its anniversary

Today, Merck KGaA, Darmstadt, Germany is a leading science and technology company in Healthcare, Life Science and Performance Materials. Since we were founded in Darmstadt, Germany in 1668, we have become truly global – with more than 50,000 employees in 66 countries working on breakthrough solutions and vibrant technologies.

Our course was set by an aspiring pharmacist back in 1668. To us, 350 years of Merck KGaA, Darmstadt, Germany is about celebrating curiosity – the force that drives us to find answers to some of the greatest human questions, the power that connects us as partners, drives human progress and challenges us to imagine the next 350 years.

Join us in celebrating 350 years of curiosity.

	<p>Vibrant village in Darmstadt, short-term buildings for 350th anniversary activities, built in 2018</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS13.1)</p>
	<p>Key visual for 350th anniversary</p> <p>(picture: Merck KGaA, Darmstadt, Germany_350_MS13.2)</p>

