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Gregor Johann Mendel

Important biographical dates¹

- 1822 born on 20th July in Hynčice (nowadays part of the municipality of Vražné)²
- 1831–1833 attends primary school in Hynčice
- 1833–1834 studies at the Piarist school in Lipník
- 1834–1840 grammar school in Opava, private tuition to secure funds for studies
- 1840–1843 Philosophical Institute at the University of Olomouc³
- 1843–1844 arrives in Brno and enters the Augustinian monastery in Staré Brno (Old Brno)⁴, where, taking the monastic name Gregor, he becomes a novice
- 1844–1848 studies at the Institute of Theology in Brno
- 1846 attends lectures and exams in agriculture, fruit-growing, and viticulture from F. Diebl⁵
- 1848–1849 priest in the Staré Brno parish
- 1849–1850 substitute teacher at the grammar school in Znojmo, where he teaches mathematics and Greek
- 1850 first unsuccessful attempt to pass university exams in teaching certification in Vienna⁶
- 1851 substitute teacher at the Technical School in Brno⁷; he becomes a member of the Moravian-Silesian Agricultural Society in Brno
- 1851–1853 studies physics and natural history at the University of Vienna⁸
- 1853 publishes work on *Botys margaritalis*, a rape pest, in the journal of the Zoological-Botanical Society in Vienna
- 1854 Mendel is appointed teacher of physics and natural history at the *Realschule* in Brno, publishes work on the *Bruchus pisi* (Pea weevil) pest in the journal of the Zoological-Botanical Society in Vienna, construction of a greenhouse in the monastery's garden
- 1854–1856 experiments with peas, the goal of which is to select permanent character lines
- 1855 second attempt to pass university exams in Vienna
- 1856–1864 hybridisation experiments with peas in the monastery garden
- 1857 official observer for meteorology in the Natural Scientific Section of the Moravian-Silesian Agricultural Society⁹
- 1862 becomes a member of the Nature Research Society in Brno; journeys to Paris and London, where he visits the International Exhibition, continues experiments with plant hybrids
- 1863 publishes meteorological observations from 1862, continues experiments with plant hybrids
- 1864 completes experimental work with plant hybrids, publishes meteorological observations for 1863
- 1865 lectures on his experiments with plant hybrids at the Nature Research Society in Brno¹⁰, publishes meteorological observations from 1864 in Brno
- 1866 publishes a paper on experiments with plant hybrids in Brno, sends Professor Nägeli in Munich a separate section of his work with a covering letter¹¹, performs artificial crossing of hawkweed (*Hieracium*) and publishes meteorological observations from 1865
- 1867 receives the first letter from Nägeli, publishes meteorological observations from 1866 in Brno
- 1868 becomes Abbot and Prelate of the Augustinian monastery in Staré Brno with the right to use a personal coat of arms, continues his correspondence about plant hybrids with Nägeli
- 1869 becomes Vice-President of the Nature Research Society in Brno, continues his correspondence with Nägeli on plant hybrids; lectures on experiments with hawkweed hybrids¹²
- 1870 publishes his experiments with hawkweed hybrids in Brno, publishes meteorological observations from 1869, continues his correspondence with Nägeli, votes for the pro-constitutional Liberal Party for the Moravian Congress
- 1871 publishes an article about a tornado in Brno, builds an apiary in the garden of the Augustinian abbey in Staré Brno, investigates heredity in bees
- 1872 awarded the Commander's Cross of the Imperial Austrian Order of Franz Josef
- 1873 has hardy plants planted on the adjacent slopes of Špilberk as food for bee colonies, the last surviving letter about hybrids to Nägeli
- 1874 in the notes of his dissertation on plant hybrids, I. F. Schmalhausen quotes Mendel's work, correctly assessing its importance; unfortunately, there is no further response
- 1874 experiments with crossing dark domestic bees with light Cyprus honey bees
- 1874–1884 protests against the increase in contributions to the state religious fund
- 1877 informs G. v. Niessl of his groundwater level measurements
- 1881 became the director of the Moravian Mortgage Bank
- 1882 publishes on the tornado in Brno and Blansko in the Austrian Meteorological Association journal
- 1883 in a letter to his nephews Alois and Ferdinand Schindler, he asks for grafts from the fruit trees in his parents' garden
- 1884 dies 6th January and is buried on 9th January in the Central Cemetery in Brno

Other important dates

- 1900 Mendel's published work on experiments with plant hybrids from 1866 is independently "rediscovered" and confirmed by Carl Correns, Hugo de Vries, and Erich von Tschermak-Seydenegg, and becomes the basis of the science of heredity
- 1902 the first commemorative plaque anywhere in the world dedicated to Gregor Mendel is unveiled on 20th July at the fire station in Hynčice¹³; William Bateson translates Mendel's paper into English
- 1905 announcement of a public tender for a Mendel Memorial in Brno¹⁴; W. Bateson, a tireless promoter of

Mendel's work, creates the term genetics for modern heredity science	are held in Brno ¹⁶ ; a memorial room evocative of the personality of Abbot Gregor Mendel, created by the monastery in cooperation with H. Iltis, is opened	Mendel's research with peas at a completely new level ¹⁹ , Gregor Mendel's name gains prominence again with the discovery of the structure of DNA
1910 on October 2, in the presence of important representatives of the city and science, Theodore Charlemont's monument to Mendel is unveiled in the Monastery Square (today's Mendel Square) in Brno; ¹⁵ H. Iltis opens the first-ever exhibition on Mendel; Mendel's memorabilia, works, documents, and letters are exhibited; E. von Tschermak-Seysenegg establishes the Mendeleum Plant Breeding Institute in Lednice	1924 H. Iltis's book <i>Gregor Johann Mendel – Leben, Werk und Wirkung</i> is published ¹⁷	1965 an international symposium is held in Brno to mark the 100 th anniversary of the publication of Mendel's paper; in addition, Mendelianum – the Gregor Mendel Memorial of the Moravian Museum is also opened in the premises of the Augustinian monastery in Staré Brno ²⁰
1922 International celebrations of the 100 th anniversary of Mendel's birth	1932 H. Iltis opens the Mendel Museum, which focuses on Mendel as a significant figure for science and knowledge ¹⁸	2015 the Mendelianum – Attractive World of Genetics is inaugurated in the Bishop's Court ²¹
	1939–45 the Nazis attempt to misuse Mendel's legacy	
	1950 abolition of the monastery and order by Communists	
	1953 the discovery of the structure of DNA reaffirmed the conclusions of	

¹ Based on data from the work of Anna Matalová: *Gregor Johann Mendel*. Mendelianum, Moravské zemské muzeum / K-PUBLIC Publishers, Brno, ISBN 80-7028-150-2 and notes from Matalová's translation of Mendel's work *Pokusy s hybridy rostlin (Experiments on Plant Hybridization)*, published by J. Krejčí, K-public, Brno, 2008, ISBN 978-80-87028-02-5.

² According to parish records and his baptismal certificate. Mendel, however, insisted throughout his life that his date of birth was 22nd July, the date that appears on his other documents.

³ From 1840–1841 Mendel interrupted his studies for a year on health grounds.

⁴ Based on the recommendation of F. Franz, a physics professor in Olomouc.

⁵ F. Diebl taught agricultural science and natural history and was also a custodian of the Museum Franciscum (today, the Moravian Museum) in Brno.

⁶ On this occasion, wrote his own biography for the Examination Board on 17th April. The biography is important source material relating to Mendel's personality and life.

⁷ He substituted for Professor J. Helcelet, teaching agriculture.

⁸ He was especially involved in the study of experimental physics under C. Doppler and A. von Ettingshausen and plant physiology under F. Unger.

⁹ Mendel is an active member of many other sections of the society and cooperates with the Museum Franciscum (now the Moravian Museum).

¹⁰ Mendel lectured on his experiments with plant hybrids on two occasions, on 8th February and on 8th March. He ended the first part with a section on the offspring of hybrids combining several different traits, and the second beginning with a discussion on the germ cells of hybrids.

¹¹ Thus initiating mutual correspondence about plant hybrids.

¹² Mendel gave this lecture on 9th June at a meeting of the Nature Research Society in Brno.

¹³ Mendel significantly supported the creation of volunteer firefighters in his native village. His nephew, Alois Schindler, gave a thank-you speech here, which he then published under the title *Gedenkrede auf Prälat Gregor Joh. Mendel (Commemorative speech for Prelate Gregor Joh. Mendel)*. This was the first biography of Mendel, apart from the one he himself wrote in 1850.

¹⁴ The contracting authority was the Brno Museum of Applied Arts and the Nature Research Society, the secretary of which was Hugo Iltis.

¹⁵ On this occasion, Klosterplatz (Monastery Square) was renamed Gregor-Mendel-Platz (Gregor Mendel Square).

¹⁶ On this occasion, a smaller monument was built in Mendel's garden in the Augustinian monastery in Staré Brno.

¹⁷ This is the first historical-scientific treatise on Mendel's life and his research activities. It was published in English under the title *Life of Mendel* in 1932.

¹⁸ Iltis is active in Brno almost until the Nazi occupation and flees to the United States shortly before that.

¹⁹ After Stalin's death, Soviet anti-Mendelist T. D. Lysenko lost his privileged position in Eastern Bloc science, and his pseudoscientific activities were discredited.

²⁰ Today, the Moravian Museum. The founder of Mendelianum was the leading First Republic geneticist and prominent Mendel scholar Jaroslav Kříženecký, who thus continued his previous cooperation with his colleague Iltis. The Mendelianum exhibition in the refectory of the monastery was created according to a design by the important architect Bohuslav Fuchs.

²¹ The Bishop's Court was the seat of the Agricultural Society, where Mendel worked for 33 years.

Introduction

In 2022 we commemorate the 200th anniversary of the birth of Gregor Johann Mendel, the world-renowned discoverer of the laws of heredity, variability and inheritable information, the founder of genetics and one of the greatest geniuses of modern science. This is not the first time that the world's attention has been drawn to Mendel's life, work, and legacy. This first happened on an international level in 1910, following the 1900 'rediscovery' of the importance of Mendel's paper and independent confirmation of its findings by three researchers: Carl Correns, Hugo de Vries, and Erich von Tschermak-Seysenegg. On 2nd October 1910, Theodor Charlemont's Mendel Monument was unveiled in Brno's Klosterplatz (Monastery Square) in the presence of prominent representatives of the city and world science. Mendel's first biographer, Hugo Iltis, also opened his exhibition on Mendel in Brno. For the first time, Mendel's memorabilia, works, documents, and letters went on display.

The next major international celebration took place in Brno in 1922 on the occasion of the centenary of Mendel's birth, when a small monument was unveiled in the garden of the Augustinian monastery in Staré (Old) Brno, and a memorial room to Abbot Gregor Mendel, created in collaboration with Hugo Iltis, was opened in the monastery.

In 1965, on the centenary of the publication of Mendel's paper, a large international symposium was held in Brno. On this occasion, the Mendelianum – Gregor Mendel Memorial of the Moravian Museum was opened on the premises of the Augustinian monastery in Staré Brno. Its founder was the prominent geneticist and Mendelian researcher Jaroslav Kříženecký, who continued his earlier collaboration with Hugo Iltis. The International Mendel Memorial Symposium, held in Brno from 4th to 7th August 1965 under the patronage of the Genetics Section of the International Union of Biological Sciences (IUBS), the Czechoslovak Commission of UNESCO, the International Atomic Energy Agency (IAEA) and others, went down in history as a rehabilitation of Mendel's work after the long post-war suppression of genetics in communist Czechoslovakia.

On this important occasion, the Mendelianum of the Moravian Museum published one of its first publications under the title *Iconographia Mendeliana*. It was dedicated to the memory of Gregor Johann Mendel on the centenary of the publication of his discovery of the foundations of heredity.

The uniqueness of the pictorial publication *Iconographia Mendeliana* lay primarily in the breadth and depth it drew together previously scattered pictorial and documentary material on Mendelian topics. It is no exaggeration to say that a similarly extensive and comprehensive publication had not been produced before nor was one produced for a long time afterwards. This is due to a number of circumstances, the first of which is that Mendel's estate is very modest and written sources on his life and work are based on only a few historical sources. It was only from the beginning of the twentieth century that Mendel's Nature Research Society and the Augustinian monastery in Staré Brno began to collect memorabilia and documents about Mendel's life and his extensive activities. After the Second World War, these were gradually concentrated in the Moravian Museum. According to the statutes of Mendel's Nature Research Society, following the cessation of its activi-

ties, all documents and property were to be transferred to the Moravian Museum - the heir to the Moravian-Silesian Agricultural Society.

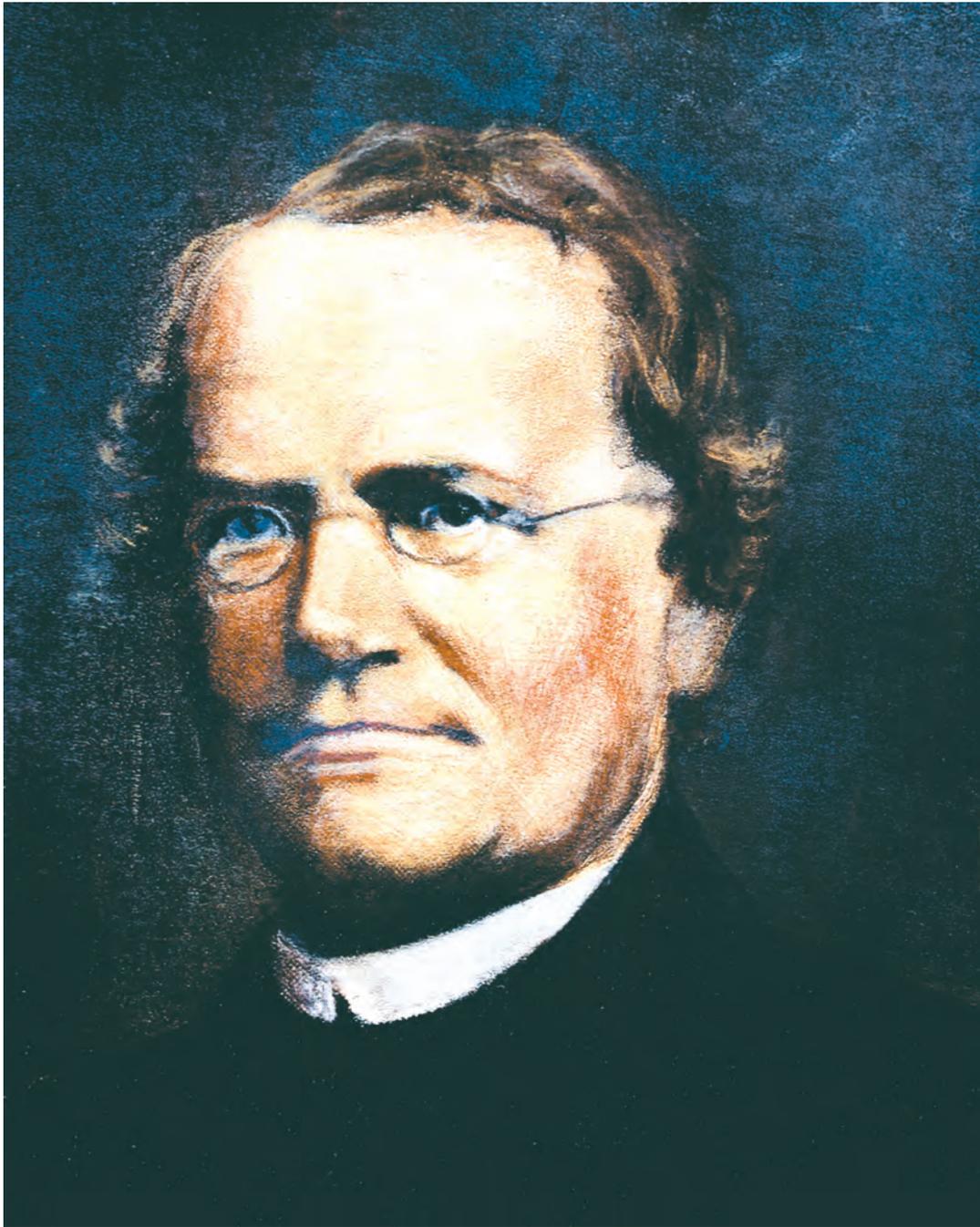
Today's Moravian Museum is the direct successor to the Museum Franciscum (Františkovo muzeum) founded in 1817 by the Moravian-Silesian Agricultural Society (Ackerbaugesellschaft), the scientific society in which Mendel was active for thirty years and from which he gained inspiration for his research. The Moravian Museum is thus the only institution with a research programme that is historically linked to Mendel's scientific society, which is why the Gregor Mendel Department of Genetics was established in 1962 under the leadership of the leading Mendelian researcher and geneticist Jaroslav Kříženecký. It was his initiative that led to the creation of this now legendary *Iconographia Mendeliana*. Unfortunately, he did not live to see its publication having died a year earlier from health complications resulting from his time as a political prisoner in a communist prison.

Another extraordinary achievement of the Moravian Museum's Mendelianum was the establishment of the new periodical *Folia Mendeliana*, the only international peer-reviewed historical-scientific journal with the results of research into Mendel's life and work, the influence of his legacy on the origins and early development of genetics, and the study of living systems and their evolution in general. The *Folia Mendeliana* was founded with the support of UNESCO and is still published regularly to the present day. Articles are published in English, except for some contributions in German. The journal is particularly unique in that it provides a source of continuous development of knowledge in this field and represents half a century of international research into both Mendel's life and work and the origins and historical development of genetics.

With the approaching bicentenary of Gregor Johann Mendel's birth, we have therefore decided to combine these two successful projects and to rework and expand the concept of the original *Iconographia Mendeliana* pictorial publication, which is nowadays practically unavailable to the public, and to supplement it with a selection of information and references to the most important works published on the subject in the journal *Folia Mendeliana* by prominent scholars. We intend to recall and present anew in this concentrated form the most important scientific papers published in our country over the past half-century, for example, historical scientific works by authors such as F. Weiling, R. Olby, J. Heimans, J. Kříženecký, A. Matalová, V. Orel and many others.

The visual element has been technically reprocessed and expanded with regard to the additional possibilities of digital processing. The chronological structure and thematic division of the sequence of pictorial and written documents characterizing Mendel's life and work have been chosen with respect to the original edition and supplemented where the current possibilities of using new sources and textual information have made this possible. Our main aim was to reacquaint the present generation of those interested in Mendel with this exceptional documentary work in a contemporary concept made possible by modern-day technical, information, and documentation resources. So let us now open the door together to the world that was so intimately close to Mendel, and become acquainted with the important sources of our knowledge about him.

Jiří Sekerák



1 - Gregor Johann Mendel, pastel portrait after a photograph.



Patentibus hisce literis testamur, Joannem Mendel, Fil. Heinzenдорф. exemt. a did. ex inclyt. Gub. decret. ddtto. 15. Decbr. 1834. Nr. 42802. praescriptum in Gymnasiis austriacis studio, rum cursum in Cæs. Reg. Gymnasio Oppavia publice absol. visse atque in tentaminibus publicis e praescriptis materi. is omnibus et a morum cultura in sequentes classes rela. tum esse et quidem.

Ordo studiorum.	Semester	E. Mori. bus.	Ex. Appli. catione.	Q. Doctr. Religi. onis.	E. Latinae ling. stud. & Styl.	E. Graecae ling. studio.	E. Geogra. ppha et Histor.	Qa. math. metica Algebra	Adnotatio.
In I. Gramatic. Classe 1835.	I.	sem.	prim.	prim.	prim.	—	adem.	prim.	
	II.	sem.	prim.	adem.	prim.	—	sem.	prim.	
In II. Gramatic. Classe 1836.	I.	sem.	prim.	prim.	prim.	—	sem.	prim.	
	II.	sem.	sem.	adem.	adem.	—	sem.	adem.	
In III. Gramatic. Classe 1837.	I.	sem.	sem.	sem.	sem.	sem.	sem.	sem.	III. inter Eminent.
	II.	sem.	sem.	sem.	sem.	sem.	sem.	sem.	I. Accedens.
In IV. Gramatic. Classe 1838.	I.	sem.	sem.	adem.	sem.	sem.	sem.	sem.	
	II.	sem.	sem.	sem.	sem.	sem.	sem.	sem.	I. Praemiss. access.
In I. Human. Classe 1839.	I.	sem.	sem.	adem.	sem.	sem.	adem.	sem.	
	II.	sem.	sem.	prim.	prim.	prim.	prim.	prim.	
In II. Human. Classe 1840.	I.	sem.	sem.	sem.	sem.	adem.	adem.	adem.	
	II.	sem.	sem.	sem.	sem.	sem.	sem.	sem.	

Datum in Gymnasio C. R. Oppaviae die 7. Augusti. 1840.

Ferol. Schaumann
Prof. Gymnasii

Martinus Beckh
Humanit. class. Professor
Ludovicus Sidlitz
suppl. Relig. Profess.
Thomas Zauharz
Professor Grammat.

10 - Mendel's final report card from Opava Grammar School.



15 - A watercolour of Brno from 1838, several years before Mendel's arrival, showing the railway viaduct and on the left side the Augustinian monastery. Originally a Cistercian convent founded by Elizabeth Richeza of Poland, the Augustinians moved there from St. Thomas's Abbey in Brno in 1783.



31 - The monastery refectory in the first half of the 20th Century.



Země korunní: _____

Kraj: _____

Podkraj: _____

Číslo: _____

Kronland: *Mähren*

Kreis *Bruenner*

Bezirkshauptmannschaft *Bruenn*

Nro. *219*

List domovský

Jimžto níže psaní představení obce
vysvědčují, že:

Jméno: _____

zaměstnání: _____

stáří: _____

stav: _____

místo, kde se zdržuje: _____

náleží do společnosti obce _____

, a že mu v ni přísluší právo

domovské.

Tentýž jest:

postavy _____

má vlasy: _____

„ oči: _____

„ zvláštní znamení: _____

mluví: _____

List tento platí na čtyry leta.

Heimathschein

womit von dem gefertigten Gemeindevorstande
bestätigt wird, daß

Name: *Gregor Mendel*

Beschäftigung *Landwirthschaftslehrer in Brünn*

Alter: *36 Jahre*

Stand: *Landwirthschaftslehrer*

Aufenthaltort: *Wien*

in den Verband der Gemeinde *der Landeshauptstadt*

Brünn gehöre und in derselben das Heimathrecht besitze.

Derselbe ist:

von Statur *mittleren*

hat Haare: *blond*

„ Augen: *grün*

„ besondere Kennzeichen *keine*

spricht: *deutsch*

Dieser Schein ist auf die Dauer
von vier Jahren gültig.

Brünn am 27. Oktober 1851
Gregor Mendel
Vize Bürgermeister

56 - Gregor Johann Mendel's certificate of family origin, issued to him on 27th October 1851. This document also served as an identity and travel document.



66 - The *Realschule* in Brno, located at 22 Jánská Street, where Mendel taught and lectured about his discoveries in 1865. The Nature Research Society of Brno, of which Mendel was a member, met here at the time. Mendel gave his famous lecture in two parts at meetings held in the school, on 8th February and 8th March 1865.

40 ~~Vergleichs~~

Versuche über Pflanzen-Hybriden

von
Gregor Mendel.

(Vorgetragen in den Sitzungen vom 8. Februar u. 8. März 1865.)

Einleitende Bemerkungen

Dünstliche Lesensrichtungen, welche zu Ziampflanzungen überführt man,
gerne man wundert, um auch Leucht- Kometen zu zeigen,
sowie die Kometenführung zu den Kometen, welche die
Kometenführung wundert sollen. Die auffallende Regelmäßigkeit,
mit welcher dieselben Hybridformen immer wiederkehren,
so oft die Lesensrichtung gewisse gleiche Stellen ergreift, gab
die Gelegenheit zu weiteren Experimenten, deren Aufgabe
es war, die Entwicklung der Hybriden in ihrer
man zu verfolgen.

Dieser Aufgabe sind folgende Beobachter, wie Hübner,
Gärtner, Herbert, Lecq, Wichura u. a. einen Teil ihrer
Lebens mit unermüdetem Eifer gewidmet. Namentlich
hat Herr Gärtner in seiner Arbeit „die Leuchtentzückung
im Pflanzenreich“ sehr wertvolle Beobachtungen mitgeteilt,
und in neuerer Zeit sind von Wichura gründliche
Untersuchungen über die Leuchtentzückung der
Licht. Wenn es nicht gelänge, die allgemeinen
gesetzmäßigen Gesetze der Leuchtentzückung und Entwicklung der
Hybriden aufzustellen, so kann das Nimmende Hindernis
nehmen, den den Umfang der Aufgabe kennt und die
Befähigung zu wundert, mit dem Kometen



84 - In his experiments, Mendel observed a total of seven pairs of characters in pea plants, here the stem length: tall or short.

85 - Shape and colouring of seeds.

86 - The seed colour (seed husks), flower colour, and axil (where the leaf and stem meet) pigmentation.



111 - View of Brno from the southwest in 1850 by Franz Xaver Sandmann. On the left is the Augustinian monastery in Staré Brno.



124 - Nature Research Society Committee in Brno. Seated from the left: 1. Karl Theimer (pharmacy, botany). 2. Joseph Auspitz (Headmaster of the *Realschule*, mathematics, physics). 3. Alexander Zawadski (Professor at the *Realschule*, botany, physics). 4. Johann Nave (botany). 5. Eduard Wallauschek (entomology). Standing from the right: 6. Julius Müller (entomology). 7. Franz Czermak (chemistry, mineralogy). 8. Karl Schwippel (Gymnasim Headmaster, natural history, physics). 9. Alexander Makowsky (Professor at the Technical Institute, natural history). 10. Gustav von Niessl (Professor at the Technical Institute, mathematics). 11. Ignaz Weiner (Professor at the *Realschule*, physics). 12. Jacob Kalmus (botany).



Konvent řehole Augustiniánské u sv. Tomáše na Starém Brně tímto uctivě dává smutnou zprávu o úmrtí svého
veleváženého opata nejdůstojnějšího pána, pana

Řehoře Jana Mendela,

inful. preláta, komtura c. k. rak. řádu císaře Františka Josefa, zasloužilého ředitele moravské zemské hypoteční banky, zakládajícího člena rak. meteorol. spolku, člena c. k. morav. i slez. společnosti pro orbu, přírodo- a země-
znalství a jiných učených a prospěšných spolků atd. atd.,

narozeneho dne 22. června 1822 v Hynčicích ve Slezsku,

kterého po dlouhé a trapné nemoci, zaopatřeneho sv. svátostmi a do vůle Nejvyššího oddaného, Pán v neděli 6. ledna ráno,
o půl druhé hodině z tohoto pozemského života povolati ráčil.

Slavné obřady pohřební a mše sv. budou se konati ve středu 9. ledna, o 9. ráno v chrámě klášterním, a pak
tělesná schránka zesulého na brněnském ústředním hřbitově se pochová.

At odpočívá v pokoji!

V BRNĚ, 6. ledna 1884.

Tiskem benediktinské knihtiskárny v Brně.

477 D. 76 *Fr. Winkler*

Todten-Besichtigungs-Anzeige.

Gasse und Haus	Namen des Verstorbenen	Allersjahre	Sterbtag und Stunde	Krankheit
<i>Nový Svět 41</i>	<i>Eminent Jan M. Gregor Mendel Praha 2. řet. ul. Královská katedr. M. L. B. S. S.</i>	<i>64</i>	<i>Den 6. Jan 1884 večer</i>	<i>Langinfant Narb. Brigh...</i>
	<i>den 7. Januar 1884</i>		<i>4 Uhr</i>	<i>H. Kuchler</i>

Fr. Winkler, k. u. Hofbuchdrucker, Brno.

146 - Czech notification of Mendel's death (in Brno on 6th January 1884) with an incorrect month of birth.

147 - Death certificate.