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The problematic legacy of victim specimens from the Nazi era: Identifying the persons behind the specimens at the Max Planck Institutes for Brain Research and of Psychiatry

Paul Weindling^{a,b}, Gerrit Hohendorf^{†,c}, Axel C. Hüntelmann^d, Jasmin Kindel^c, Annemarie Kinzelbach^c, Aleksandra Loewenau^a, Stephanie Neuner^e, Michał Adam Palacz^a, Marion Zingler^f, and Herwig Czech^f

^aSchool of History, Philosophy and Culture, Oxford Brookes University, Oxford, UK; ^bCenter for Science Research, Leopoldina, Halle, Germany; Institut für Geschichte und Ethik der Medizin, Technische Universität München (TUM), Munich, Germany; ^dInstitut für Geschichte der Medizin und Ethik in der Medizin, Charité – Universitätsmedizin Berlin, Berlin, Germany; "Stiftung Deutsches Historisches Museum, Berlin, Germany; 'Department of Ethics, Collections, and History of Medicine, Medical University of Vienna, Vienna, Austria

ABSTRACT

Although 75 years have passed since the end of World War II, the Max Planck Society (Max-Planck Gesellschaft, MPG), successor to the Kaiser Wilhelm Society (Kaiser-Wilhelm-Gesellschaft, KWG), still must grapple with how two of its foremost institutes-the KWI of Psychiatry in Munich and the KWI for Brain Research in Berlin-Buch—amassed collections of brains from victims of Nazi crimes, and how these human remains were retained for postwar research. Initial efforts to deal with victim specimens during the 1980s met with denial and, subsequently, rapid disposal in 1989/1990. Despite the decision of the MPG's president to retain documentation for historical purposes, there are gaps in the available sources. This article provides preliminary results of a research program initiated in 2017 (to be completed by October 2023) to provide victim identifications and the circumstances of deaths.

KEYWORDS

Brain research; Germanoccupied Poland; human tissues; Kaiser-Wilhelm-Gesellschaft (KWG)/Kaiser Wilhelm Society; Max-Planck -Gesellschaft (MPG)/Max Planck Society; Max Planck Institute for Brain Research (MPIBR); Max Planck Institute of Psychiatry (MPIP); Nazi "euthanasia"; Nazi Germany; neuropathology; prisoners of war (POWs); "race hygiene"; research ethics; Typhus (Fleckfieber); victims of Nazi persecution

Introduction

During the Nazi period, scientists from the Kaiser-Wilhelm-Gesellschaft (KWG) used many opportunities to collect tissue from victims of "euthanasia" killings and other crimes. Since Germany's defeat in 1945, the retention of research material in institutes of the KWG (and its successor, the Max-Planck-Gesellschaft; MPG) has been the subject of public debate and even scandal on several occasions, without ever reaching definitive resolution. Following the (re)discovery of Nazi-era human tissue specimens in the MPG's Berlin archive in 2016, the MPG financed an extensive research project tasked with identifying those victims whose remains were used for research in the past within the KWG/MPG research framework, reconstructing the history of relevant

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CONTACT Herwig Czech 🖾 herwig.czech@meduniwien.ac.at 🖃 Department of Ethics, Collections, and History of Medicine (Josephinum), Medical University of Vienna, Vienna, Austria

[†]Sadly, Prof. Hohendorf passed away on July 12, 2021 and could himself not see the appearance of this co-authored article. It represents the last article he has published as an influential history scholar of medicine of the Nazi Period. Please see also the obituary note in the guest editors' Introduction article to this Special Issue for further information.

scientific collections, and analyzing the MPG's policies regarding this issue. This article presents the project's preliminary results.¹

The political scientist Götz Aly found that the MPI for Brain Research (MPIBR; Max-Planck-Institut für Hirnforschung) in Frankfurt am Main in mid-1984-which in 1944/1945 had moved from Berlin amongst other locations to Dillenburg, Gießen, and later Frankfurt -held brain tissue slides derived from child victims of "euthanasia" (Aly 2015). Aly informed the MPG president of his findings in 1984. The ensuing discussion triggered by Aly (1985) exerted pressure on MPG researchers to cease using specimens derived from victims of Nazi persecution for research and teaching, and to remove them from their collections. The MPG's president, advised by the MPG archivist, decided to bury compromised specimens, as provenance research would take several years. This decision was interpreted differently by the institutes. The MPIBR followed the advice of the MPG archivist by burying all known specimens collected from 1933 to 1945 without verification of a possibly unethical or unlawful origin and without individual identification.² The MPI of Psychiatry (MPIP, Max-Planck-Institut für Psychiatrie, formerly DFA, Deutsche Forschungsanstalt für Psychiatrie) in Munich approached the issue differently. Under the direction of neuropathologist Georg W. Kreutzberg (1932-2019), the MPIP decided to remove only certain specimens of suspicious origin. The scientist tasked with the triage of the slides was Elisabeth Rothemund. The Brain Research, Psychiatry, and Neurology Institute directors, with the MPG president's approval, buried the specimens at the Munich Waldfriedhof in 1990. The selection by the MPIP was based on diagnoses that suggested possible "euthanasia" (in the sense of medically disguised murder as implemented by the Nazi regime), or injustice in the case of executed persons. The focus was on suspicious causes of death and certain psychiatric institutions, particularly Eglfing-Haar (where a KWG Prosektor [medical examiner] was sited) and approximately 20 other psychiatric hospitals. Yet this selection, conducted without deeper historical research or evaluation of clinical records, remained arbitrary.

The neuropathologist Jürgen Peiffer (1922–2006) published on the topic (Peiffer 1991, 1997, 2000, 2005; Topp and Peiffer 2007). When the MPG instituted a Presidential Commission on its predecessor institution in National Socialism from 1997 to 2004, both Hans Walter Schmuhl (2000) and Peiffer (2000, p. 167) produced figures concerning neuropathological research on victims of "euthanasia". A concern was possible remaining human material in MPG collections. The Commission opted to have outside experts, notably historians Reinhard Rürup (1934–2018) and Wolfgang Schieder, working with Doris Kaufmann, Carola Sachse, and Susanne Heim, and as Commission members the non-Germans Hans-Jörg Rheinberger (from Lichtenstein albeit an MPG Institute Director), Fritz Stern (1926–2016), and Paul Weindling. The MPG archivists Eckart Henning and Matthias Weber were not included.³

In 2001, there was internal consideration within the MPG of microscopic brain specimens at the MPG Archive in Berlin. The Presidential Commission was not informed about these. Years later, as a result of Weindling's and then Aly's publications on the burials, the

¹The official project title is, "Brain research at institutes of the Kaiser Wilhelm Society in the context of Nazi injustices: Brain specimens in institutes of the Max Planck Society and identification of victims," July 2017 to October 2023.

²Henning Überlegungen/Nachforschungen, March 8, 9, 11, 1989; Archives of the MPG (further on cited as AMPG) II. Abt., Rep. 1 F, Az A-II-7a Besondere Aufgaben Hirnschnittsammlung.

³Website of the Presidential Commission: https://www.mpiwg-berlin.mpg.de/KWG/commission.htm [8 August 2019].

issue was reevaluated by the directors of the MPIBR in Frankfurt, along with Director Emeritus Heinz Wässle (Weindling 2012; Aly 2013, pp. 120–138, 2015, pp. 201–239). In 2015, these microscopic slides—of which four sets are suspected to be derived from victims of "euthanasia"—were rediscovered by Wässle in the MPG archives. This led to a new Presidential Commission in the spring of 2016 and a further investigation, to be conducted in the MPIP archives, was launched. Initial findings substantiated that brain tissues of victims of "euthanasia" and other victims of Nazi persecution were still present at Munich's MPIP after the burials conducted in 1990.⁴

The MPIBR saw the need for a full-scale historical project and gained support from the MPIP and the MPG president. In November 2016, the MPG approved a research proposal from Patricia Heberer-Rice, Gerrit Hohendorf, Volker Roelcke, and Paul Weindling for a comprehensive research project into the scientific exploitation of Nazi victims at the KWG and the MPG.⁵ Following a delay due to a wider search for human specimens at other Max Planck Institutes, in December 2016, Herwig Czech was invited to join the team of project leaders; the project started in July 2017 with a cooperative agreement between Oxford Brookes University, the Leopoldina in Halle an der Saale, the Technical University of Munich, and the Medical University of Vienna.⁶

The project has three main goals: (a) identifying biographical information of victims of unethically conducted neuropathological research in KWIs, 1939 to 1945; (b) reconstructing networks and research agendas of neuropathological (and, to a lesser extent, genetic) research during World War II, based on "euthanasia" killings and other victims of scientific crimes; and (c) reconstructing the history of specimens from extraction to eventual current locations— above or below ground. The use of compromised specimens for research and teaching beyond 1945 and the MPG policy concerning this problematic history will be described. The decision on the slides and their commemoration will be made by the involved institutes and Presidential Commission, to which the independent historians communicate their findings.

This article gives (a) the background of the Munich Waldfriedhof burial in 1990 and the question of (non)identifying the victims; (b) an outline of first results concerning MPIP victim specimens since 1945; (c) evidence of connections between eugenic and neuropathological research at the DFA; (d) the state of historical research on neuropathological abuse of "euthanasia" victims at the KWIBR in Berlin-Buch; and (e) neuropathological research on Polish/Jewish victims of German occupation, POWs, and executed persons.

From denial to provenance research: The MPG's Nazi-era brain specimens⁷

Collective burial

In 1984, Götz Aly informed the MPG that the MPIBR in Frankfurt held brain tissues of "euthanasia" victims. He identified 33 children, all killed on October 28, 1940. His verdict

⁴Press release of the Max Planck Institute of Psychiatry from March 14, 2016: http://www.psych.mpg.de/ 2149932/pm1542archive [13 December 2018]. See also Weindling (2012).

⁵Gerrit Hohendorf, Volker Roelcke, Paul Weindling (in cooperation with Patricia Heberer-Rice), Hirnforschung an Instituten der Kaiser-Wilhelm-Gesellschaft im Kontext nationalsozialistischer Unrechtstaten: Hirnpräparate in Instituten der Max-Planck-Gesellschaft und die Identifizierung der Opfer. Antrag für ein Forschungsprojekt, April 22, 2016.

⁶The Medical University of Vienna negotiated a cooperative agreement with the Charité Berlin to fulfill its part of the research _ program.

⁷This section by Paul Weindling represents a condensed version of Weindling (2012), with the addition of a section covering 1990 to the present.

was that the brain sections in this collection should be destroyed "out of respect to victims of Nazism" (Aly 1985, 78).⁸ Aly prioritized "destruction" until discussing the brain tissues with classicist Martin Schmidt (Aly 2015, p. 208) and, in 1987, with Weindling; both suggested dignified burial.⁹ There was convergence of historical agendas: one arising from a sense of ethical responsibility at the MPIBR in 2015, and the other from 2011 with Weindling's efforts to compile a definitive record of all victims of coerced medical research under National Socialism. The issues surrounding the brains from victims of "euthanasia" and others have an eventful history throughout the latter half of the twentieth century. Neuropathologist Julius Hallervorden (1882–1965) came to the attention of the International Military Tribunal on February 7, 1946; yet, despite suspicions that he was involved in clinical selections, Hallervorden remained unprosecuted (Peiffer 1997, 41–45; Weindling 2000).

An MPG statement from May 25, 1990, indicated that the burial of Nazi era slides consisted of eight "euthanasia" victims from the Hallervorden collection, along with thousands of slides of unknown provenance; from the MPI for Neurological Research (MPINR, Max-Planck-Institut für neurologische Forschung) in Cologne, three uncertain cases; from the MPIP, 650 cases, of whom 162 were children killed in Eglfing-Haar, and seven were executed persons. Overall, specimens stemming from 2,940 individuals were removed from the MPIBR/Edinger Institute in Frankfurt. From the Luftwaffensammlung with which neuroanatomist Hugo Spatz (1888–1969) had been involved, specimens from 1,400 individuals were removed (Schlote 1989; Dickman 1989a, 1989b, 1990; Kreutzberg 1993).¹⁰ The memorial ceremony at the Munich Waldfriedhof on May 25, 1990, stressed self-governance (Selbstbegrenzung),¹¹ implying academics should resolve such matters without political or public involvement. Whereas the MPIBR disposed of all Nazi-era slides, the MPIP in Munich was selective: For example, 14 "criminals" were (it claimed) "legitimately" condemned to death, but six persons were victims of the judicially sanctioned system of terror (Terrorjustiz).¹² This categorization left many open questions, not least whether persons executed between 1933 and 1939 had actually committed capital crimes, particularly "social parasites" (Volksschädlinge).

The burial was on February 21, 1990, and the memorial ceremony was on May 25, 1990, at the Munich Waldfriedhof (Weindling 2012).¹³ The later burial of specimens from the Edinger Institute and from other university collections at the Frankfurt am Main Hauptstadtfriedhof was undocumented (Schönhagen 1987; Peiffer 1991; Schönhagen interview with Weindling, April 29, 2014).

⁸Aly to MPG President Heinz Staab, September 17, 1984, letter and report, AMPG, II. Abt. Rep.1a, Nr. 1963. The gassing on October 28, 1940, was the last before the "T4" facility at Brandenburg closed down. Hallervorden was personally involved in the removal of the brains (Schmuhl 2000). It remains to be clarified if he also helped to select the children for death.

⁹Paul Weindling, personal recollection of a discussion with Aly at the Institut für Zeitgeschichte meeting on the history on medicine under National Socialism, November 6, 1987.

¹⁰Eckart Henning, note from the meeting on brain specimens from the time of National Socialism, April 27, 1989; Henning, deliberation / research, March 8, 9, 11, 1989; Henning, report, March 19, 1989; Henning, interim report. Status of the removal of brain tissue sections, September 6, 1989; Henning, final report on the removal of brain specimens from the time of National Socialism in the MPIBR, MPINR and MPIP, November 3, 1989, AMPG II. Abt., Rep. 92, A-II-7a, Besondere Aufgaben Hirnschnittsammlung.

¹¹Press release of the MPG from May 25, 1990. "Den Opfern zum Gedenken-den Lebenden zur Mahnung" (reprinted in MPG Spiegel/90, 10).

¹²Peter Gutjahr-Löser, brain specimens from the MPIP / verification of the reasons for execution, February 13, 1989, AMPG, II. Abt., Rep. 1F, Az A-II-7a, Besondere Aufgaben Hirnschnittsammlung.

¹³Edmund Marsch, note from February 21, 1990, AMPG, II. Abt., Rep. 1, Nr. 441.

The MPG archivist realized that appointing a commission for victim identification would take considerable time and resources and would result in problematic discussions over diagnoses and causes of death. Retention of the specimens for memorial purposes was deemed politically undesirable. The MPIBR directors and aforementioned archivist (somewhat naively) advocated complete removal to settle the problem definitively.¹⁴ Canadian physician William Seidelman argued, "There must be public documentation of who these people once were, how they died, and how institutions representing science, medicine, and higher education used their remains for almost half a century after the defeat of the Nazi regime" (Seidelman 1989). Publicist Ernst Klee (1942–2013) demanded full-scale identification (Klee 1989). The MPG opted for dignified burial (*eine würdige Beisetzung*) on the basis of the recommendation of removal.¹⁵

The shift to provenance and individual identification

MPG President Hubert Markl initiated a Commission on the KWG under National Socialism, which ran from 1997 to 2004. An initial priority was the DFA. Volker Roelcke researched links between geneticist Ernst Rüdin's (1874–1952) assistant, Julius Deussen (1906–1974), and the Heidelberg professor of psychiatry Carl Schneider (1891–1946); Roelcke linked Rüdin to research on children killed in the context of "euthanasia" carried out at Heidelberg University (Roelcke 2000; Roelcke, Hohendorf, and Rotzoll 1998). This research established that Julius Deussen was associated with the DFA not only until 1938 or 1940 but until 1945.

Having viewed in 1984 Rüdin's vast documentation pertaining to his work—taken care of by his daughter, Edith Zerbin-Rüdin (1921–2015), at the MPIP—Weindling, then a member of the MPG President's Commission for the History of the KWG, pressed for a full-scale historical evaluation of the DFA.¹⁶ The director of the research program on the KWG under National Socialism, however, shifted its focus away from psychiatry and brain research to concentrate on the KWI for Anthropology and the reception of specimens from Auschwitz.¹⁷ Weindling raised this issue at meetings of the Presidential Commission on which he served. He objected to President Peter Gruss, Markl's successor, that the Commission was to be terminated before a historical analysis of the DFA was written.¹⁸

Neurologist Wolfgang Schlote (1932–2020) from the Edinger Institute (which was situated on the premises of the MPI for Brain Research in Frankfurt) deposited a collection of 110 slides at the MPG archive in April 2001, which were "discovered" there. The slides were not referred to the Presidential Commission, despite the involvement

¹⁴Henning, final report on the removal of brain specimens, November 3, 1989, pp. 5–6, AMPG II. Abt., Rep. 1, Nr. 411. This document is stamped confidential (*vertraulich*), which was not on the document as originally viewed in file AMPG, II. Abt., Rep. 1 F, Az A-II-7a, Besondere Aufgaben Hirnschnittsammlung.

¹⁵See source cited in Note 14.

¹⁶Weindling papers, Oxford: letter from Paul Weindling to Edith Zerbin-Rüdin, October 16, 1984, and further correspondence concerning Ernst Rüdin's papers.

¹⁷Weindling papers, Oxford: e-mail from Benoît Massin to Paul Weindling, February 5, 2004, concerning the lack of critical research on Rüdin and the DFA.

¹⁸Weindling papers, Oxford: Bernd Ebersold (MPG's Deputy Secretary General, 1998–2006) to Carola Sachse, November 13, 2001: copy forwarded by Dr. Ebersold to Weindling concerning user difficulties of the research program in the history of the "KWG im Nationalsozialismus." A copy with Dr. Ebersold's annotations is now deposited in the archive of MPIP (copy of document handed to Dr. Britta Leise by Weindling), "Protokoll der Sitzung der Präsidentenkommission," May 6, 2004, TOP 2 regarding Jürgen Peiffer on "child euthanasia," and on the lack of proof that KWG researchers were involved in the killings.

6 👄 P. WEINDLING ET AL.

of neuropathologist Peiffer. Instead, they were referred to Georg Kreutzberg as MPIP director. Although the MPG archivist agreed with Kreutzberg's opinion that there was "no urgent need to act at this time," the MPG's position was that "The issue concerning Hallervorden cannot be considered as closed."¹⁹ After the commemorative ceremony in 1990, Kreutzberg expressed satisfaction that the issue of the slides had been settled.²⁰ Hence, the 2001 "find" of slides was not allowed to disturb the finality of the 1990 burial.

On June 7, 2001, MPG President Markl issued a sensitive apology to the victims of Josef Mengele's (1911–1972) twin research and other victims of experiments.²¹ This event received high publicity. The question is, why did the MPG representatives in question not inquire further about the KWIBR slides? The official, to his credit, responsibly raised the issue again in 2002, considering the matter unresolved.²² Weindling pointed out to the Commission that not only Jewish victims were affected by Mengele's medical experiments in Auschwitz; many non-Jewish German victims were victims of coerced research, a point that interested MPG President Markl (Schaltenbrand 1943; Weindling 2014). Markl mentioned to Weindling the mistreatment of his father by the Würzburg neurologist Georges Schaltenbrand (1897-1979).²³

The MPIP resisted historical scrutiny: Its archivist, Matthias M. Weber, criticized the Commission in 2002 in *Der Nervenarzt*. Weber stressed that there was no evidence pointing toward Rüdin's involvement in T4 killings of approximately 70,000 psychiatric patients by means of carbon monoxide, referred to Deussen's link to the DFA after 1940 as disputed (*umstritten*), and questioned whether the contents of fundamental medical research of the time have been adequately analyzed (Weber 2002).²⁴ The centennial volume *Denkorte* contained a contribution by Weber and Wolfgang Burgmair on the MPIP in Munich and its prehistory without citing Roelcke's research linking Rüdin to the murderous Heidelberg research on children with mental disabilities (Weber and Burgmair 2011, 171; see also Roelcke, Hohendorf, and Rotzoll 1998; Roelcke 2000).

The prevailing ethos in Germany between 1990 and 2018 called for anonymization, with names blacked out or digitally removed. The identification of victims of Nazi "euthanasia" and public commemoration by name was a process in which initiatives from the German Association of Psychiatry (DGPPN), relatives, historians, and German civil society played a central role. In 2013, a symposium in Munich called for commemoration of Munich "euthanasia" victims in a memorial book, published in spring 2018, documenting victims' names, dates of birth, and locations of death (Cranach et al. 2018; Hohendorf et al. 2014). In June 2016, an expert conference in Berlin recommended that names of "euthanasia" victims should be published, but excluding diagnoses. Dissenting voices—notably, Michael von Cranach—called for publication of medical diagnoses, and said that, over time, reasons for confidentiality diminished (Nachama and Neumärker 2017). The release of Vienna Spiegelgrund victim names for burial of specimens in 2002 and later publication of diagnoses (Häupl 2006) did not influence victim anonymization

¹⁹Ebersold, memo from July 13, 2001, AMPG, II. Abt., Rep. 1, 215; also notice of September 19, 2002, by Ebersold in response to the archivist. By this time, it was noted that three cases were possibly murder victims.

²⁰This was at the December 5–6, 1991 Münster conference [*Nach Hadamar*]; cf. Kreutzberg (1993).

²¹See https://www.mpg.de/955395/person8 [20 May 2019]; https://www.mpg.de/10331194/Symposium_2001-Biowissenschaften-Menschenversuche.pdf [20 May 2019].

²²Ebersold to Henning, September 19, 2002, AMPG, II. Abt., Rep. 1, Nr. 215.

²³Weindling papers, Oxford: e-mail from Hubert Markl to Paul Weindling, November 5, 2010.

²⁴Interim report of the MPG Presidential Commission on the history of the KWG under National Socialism, AMPG, II. Abt., Rep. 92, A-II-7d.

among German archivists and historians (on Spiegelgrund, see Czech 2002). Peiffer researched provenance and the deaths of victims of neuropsychiatric research, including the DFA and the KWIBR. He linked victim records to their medical files, and to death records from registry offices. His results were published in an anonymized and statistical form (), although his findings have become verifiable with accessibility of his papers at the University of Tübingen Archive (Weindling 2021).

On November 17, 2010, the MPIP archivist informed Weindling that there was no named list of DFA-held slides buried in 1990.²⁵ In 2011 Weindling asked then MPG President Peter Gruss for a burial list, following the advice of his predecessor, former MPG President Hubert Markl (1938-2015).²⁶ Felicitas von Aretin from the MPG press department helpfully disclosed files concerning the burial as well as the generally negative reactions to publications on its Nazi past since the 1980s.²⁷ Margit Berner (Museum of Natural History, Vienna) brought Weindling's 2012 paper on the burial to Aly's attention. This prompted Aly to publish his experiences in gaining access to specimen documentation at the MPIBR (Aly 2015, pp. 201-39).

Weindling's aim was to reconstruct the victims of brain research. From 2012 to 2015, he continued research on victims of the DFA neuropathologist Willibald Scholz (1889-1971), as well as on Hallervorden and Spatz victims (Weindling et al. 2016). Heinz Wässle responded constructively to Aly by discussing these issues with a new generation of MPIBR directors. On March 18, 2015, Wässle was surprised to find the slides deposited by Schlote in 2001. Wässle recognized that these slides—at least those from the period 1933 until 1945-were an anomaly. He reconstructed the overlooked "Series H" in the former slide cabinets at the MPIBR to clarify whether "H" represented a link to Hadamar. He showed that many of them stemmed from T4 victims whose brains were delivered to Hallervorden without involvement of the Prosektur (Department of Pathology, further on: DP) in Brandenburg-Görden (Wässle 2015, 2017).

The finding of the slides triggered the commissioning of an internal report by medical historians Wolfgang U. Eckart and Robert Jütte. According to the Süddeutsche Zeitung (March 14, 2017),²⁸ the report questioned why some slides of tuberous sclerosis (tuberöse *Sklerose*) were missing. The need for a major historical project became evident. The MPIBR commissioned an insightful film on the legacy of "euthanasia," Dark Years by Jasmine Wingfield.²⁹ At a commemorative meeting on October 28, 2015, the MPIBR directors courageously read out the full names of the child victims, as identified by Aly.³⁰ The MPIBR directors called for a full-scale research project.³¹

The Leopoldina/Anneliese Maier Forschungspreis meeting on "Hirnforschung im Nationalsozialismus, Euthanasie, und die Frage der Opfer," with Weindling as convenor, from November 29 to December 1, 2015, was timely in terms of convergence between the victim project in progress since 2010 and the new impetus from the MPIBR and MPIP for a comprehensive provenance project. Heinz Wässle had the support of the directors of the

²⁵Weindling papers, Oxford: e-mail from Matthias Weber to Weindling, November 17, 2010.

²⁶Weindling papers, Oxford: e-mail from Weindling to Peter Gruss, February 4, 2011.

²⁷Weindling papers, Oxford: e-mail from Felicitas von Aretin to Weindling, February 18, 2011.

²⁸Christina Berndt, Max Planck Institut, "Was ich gesehen habe, hat meine Befürchtungen noch übertroffen." Süddeutsche *Zeitung*, March 14, 2017 [16 October 2020]. ²⁹See https://www.youtube.com/watch?v=umuTD2md1uE [16 October 2020].

³⁰See https://www.mpg.de/9718719/ethics-in-science-mpi-for-brain-research. [16 October 2020].

³¹See https://www.mpg.de/10378571/specimens-collection-review. [16 October 2020].

MPIBR and the MPIP, and they, together, gained support from Martin Stratmann as MPG president for provenance reconstruction. The result was the establishment of the MPG Presidential Commission on "Victims of Euthanasia," chaired by Heinz Wässle.³² In contrast to the former Commission with outside experts, this new commission consists of directors of MPG institutes along with the head of the MPG legal department and the project leader of the Research Program on the History of the MPG. MPG President Stratmann appointed a group of historians (Heberer-Rice, Hohendorf, Roelcke, Weindling, and later Czech) to undertake provenance reconstruction.

Moving toward documenting individual victims, and away from collective memorials, is in line with Holocaust studies from the 1980s onward. The lack of efforts made in reconstructing the entirety of "euthanasia" victims by Germany and Austria remains regrettable, as a high number of victims could be reconstructed. It has taken the MPG over 35 years to respond adequately to Aly's findings. The named list of the former Stasi collection of 30,000 T4 victim files placed online by the Federal Archive (*Bundesarchiv*) in August 2018 represents a breakthrough, as until then no person-based analysis existed apart from an "unlawful" (in the eyes of the Bundesarchiv) online listing deriving from a public name reading of T4 victims in Berlin in December 2002.³³ Naming and access to clinical and scientific records is fundamental in enabling record linkage, so as to reconstruct life histories. Victims of "euthanasia" and how they were exploited for research can now be reconstructed, and their names and the rationales for their killing can be publicly disclosed.

The German Institute for Psychiatric Research³⁴

The German Institute for Psychiatric Research (DFA; Deutsche Forschungsanstalt für Psychiatrie), founded in 1917 by Emil Kraepelin (1856-1926) in Munich, included a Department of Neuropathology before 1925. This department was run first as the Department of Histopathology and then as the Institute of Brain Pathology by Walther Spielmeyer (1879–1935) until 1935. Following his death, Willibald Scholz took over as head of this department. Beginning in 1926, the DFA also ran a Prosektur (DP), which was housed in the Upper Bavarian psychiatric hospital in Eglfing-Haar, where it received significant financial support from the Bavarian State Ministry of the Interior and from the Bavarian administrative districts well into the post-World War II era. The staff of the DP in Eglfing-Haar were employees of the DFA. This department, which was directed by the pathologist Hans Schleussing (1897-1968) from 1936 onward, was tasked with the dissection of deceased patients from the Eglfing-Haar psychiatric hospital. Furthermore, the DP received specimens from all Bavarian psychiatric state hospitals. The dissection reports were compiled and, in cases of particular scientific interest, brains were removed and neuropathologically examined in Eglfing or Munich, macroscopically and microscopically. Moreover, pathologists conducted dissections in nongovernmental, mostly church-run hospitals in Upper Bavaria, for example in the Catholic Associationsanstalt Schönbrunn in the district of Dachau (Roelcke 2002).

³²See https://www.mpg.de/10378571/specimens-collection-review [16 October 2020] https://www.mpg.de/victims-research-project. [16 October 2020].

³³See the press release by the German Federal Archives: https://www.bundesarchiv.de/DE/Content/Pressemitteilungen/ nennung-opfernamen-euthanasie.html; Weindling (2012).

³⁴Gerrit Hohendorf, Stephanie Neuner, Annemarie Kinzelbach, Jasmin Kindel. The authors wish to express their thanks to Dr. Britta Leise from the MPIP archives and to Mr. Nikolaus Braun from the archives of of Upper Bavaria for their support. The database services on "euthanasia" victims at the DFA and KWIBR are provided by Moritz Laeger.

A sizable quantity of the brains removed and/or processed in the DP in Eglfing-Haar were sent to the DFA Department of Histopathology. The Department of Brain Pathology (further on: DBP) at the DFA additionally received brains and other neuropathological research specimens from other psychiatric institutions, hospitals, and military hospitals. At first, the brains and tissue specimens sent to the DP and the DBP of the DFA were routine deliveries within the remit of a neuropathological institution.³⁵ However, these included brains of victims of Nazi persecution. No evidence has been found that the DFA—unlike the KWIBR in Berlin-Buch-examined brains of victims of the centrally organized Aktion T4 (Beyer et al. 2016; Hohendorf 2016). Still, from 1939 onward, the mortality of institutionalized patients rose due to cost-cutting, medical and custodial neglect, malnourishment or targeted food deprivation, and overdoses of sleeping pills or tranquilizers. Counting these deaths as decentralized forms of Nazi "euthanasia" measures (Faulstich 1998; Tiedemann, Hohendorf, and Cranach 2018), it follows that the continuation of neuropathological research at the DFA since the 1920s would have led to the delivery of brains of "euthanasia" victims to the DP in Eglfing-Haar and the DBP at the DFA. The children murdered in Kinderfachabteilungen (the euphemism designating the killing institutions of the "child euthanasia" program) in Eglfing-Haar (Katzur 2018), Ansbach (Nedoschill and Castell 2001), and Kaufbeuren, whose brains were sent via the DP or to the DBP at the DFA, must be added. There remains a need for clarification as to whether brains of euthanasia victims were requested by the DP and the DBP between 1939 and 1945 in order to pursue questions relating to the causes of infantile forms of mental disability. It was known in the DFA after the war-which, from the early 1950s onward, also housed the DP following its removal in 1949 from the psychiatric hospital in Eglfing-Haar-that the brains and specimens being used for research came from "euthanasia" victims.³⁶

An archival review of the brain sample collection held at the MPIP with specimens dating back to the late-nineteenth century was launched in 2016/2017 to ascertain which samples from which individuals dating from January 1939 to December 1945 had remained at the institute and which had been removed.³⁷ This required examination of about 3,500 sample boxes, which are stored according to diagnoses and/or research areas. The current state of information is that, between January 1939 and December 1945, the DBP at the DFA received brains and brain or neuropathological samples of 1476 individuals through regular channels, meaning that these samples are accounted for in the brain specimens register. The neuropathological deliveries originated from about 90 asylums, mental hospitals, somatic hospitals, pathological institutes, military hospitals, and execution sites (see Table 1).³⁸

Of the 1689 people³⁹ whose brains ended up at the DFA Department of Neuropathology between January 1939 and December 1945, up to 100 histological sections were created per person. Wet preparations collected from 33 individuals from 1939 to 1945 remain at the

³⁵See, for example, Archive of MPIP, DFA 63, Leistungen der Prosektur und die hierzu zur Verfügung stehenden Mittel im Geschäftsjahr 1938/39.

³⁶Archives of the District of Upper Bavaria, Munich, Eglfing-Haar, No. 402, letter from Anton v. Braunmühl to State Medical Director Fritz Aub from Bavarian Ministry of the Interior, January 18, 1949.

³⁷The research undertaken has shown that patients were described in more negative terms and were increasingly neglected at least as early as 1939. Bad treatment and neglect led to a number of deaths after liberation in early May 1945, which also have to be taken into account. Therefore, the period of evaluation has been extended, beginning in early 1939 and ending in December 1945, after liberation.

³⁸See Weindling and Palacz (below) on brains of the executed.

³⁹The brain specimen collection of the MPIP moreover includes specimens from 213 people from the period between 1939 and 1945 that were not entered into the register of the Department of Brain Pathology.

Asylum	Brains
Psychiatric hospital at Eglfing-Haar	506
Psychiatric hospital at Hildburghausen	228
Schwabing hospital at Munich	152
Catholic Associationsanstalt Schönbrunn	57
Psychiatric hospital at Gabersee	27
Psychiatric hospital at Homburg	25
Psychiatric hospital at Kaufbeuren	23
Psychiatric hospital at Kutzenberg	23
Psychiatric hospital at Ansbach	19
Psychiatric hospital at Günzburg	17
Psychiatric hospital at Emmendingen	14
Psychiatric hospital at Stadtroda	12

Table 1. Institutions of origin.

MPIP, consisting of macroscopic brain sections preserved in fixative solution in glass containers. The withdrawal of specimens pertaining to 534 individuals was documented during preparations for the burial in 1990. However, not all specimens originating from these individuals have been buried. This might result from different specimens from the same individuals being stored in different boxes and overlooked during the selection process. The handwritten list of individuals' specimens to be selected, which was compiled by the neuropathologist Elisabeth Rothemund in 1989, by contrast, includes 697 individual-related entries for the years 1938 to 1945. Comparison of this list of specimens to be buried against the specimens still present in 2021 has not been undertaken to date.

The Munich-based project examines the patient files of all who died between 1939 and 1945 and whose brains ended up in the DBP at the DFA in order to ascertain whether they were victims of "euthanasia". This is no easy task, as these were not victims of Aktion T4. The question of decentralized "euthanasia" (whether patients died "natural deaths" or whether they died through neglect, starvation, or an overdose of medication) can only be assessed through their case histories. These contain their ostensible, or actual, cause of death and the autopsy report. Research on Nazi euthanasia crimes has long defined the concept of decentralized "euthanasia" as a phase of patient killings following the suspension of the "T4" killing program by Hitler in August 1941. Recent research has shown increased mortality caused by neglect, hunger, and drug overdose was already occurring *during* the Aktion T4 program.⁴⁰ It is clear from this research that there was a fluid transition from tacitly accepting a high mortality rate—caused by restricted nutrition and medical care—to intentional killings because of insufficient labor productivity or disruptive behavior, or because people were regarded as "unworthy of life" (Tiedemann, Hohendorf, and Cranach 2018, 169–73).

The causes of death were established by analyzing documented patient assessments by physicians and nursing staff and by reference to the selection criteria for Nazi "euthanasia" (labor productivity, behavior, curability or disease prognosis, assessed mental ability, and the costs involved in treatment and care) as well as on the basis of the development of physical diseases and documented therapies, weight lists, and autopsies. The standardized assessment model used in the Munich memorial publication project for psychiatric

⁴⁰As a consequence of the mounting social and religious criticisms, Nazi leadership held off the official euthanasia killing program in 1941, yet patient killings still continued after T4 Stop as a form of decentralized "wild euthanasia".

patients' files of (potential) "euthanasia" victims was developed in the framework of the DFA project on statistically sampled files of Aktion T4 victims (Hohendorf 2013, 94–120; Tiedemann, Hohendorf, and Cranach 2018). This assessment model enables a systematic documentation of the social and familial background of the affected, their hospitalization, development of institutional treatment, psychiatric devaluation, documentation of causes of death, and also the potential research interests of involved physicians. This approach allows victims of decentralized "euthanasia" to be identified, documented in a database, and correlated with their scientific exploitation.

This assessment is easier in the context of the child "euthanasia" program, as the killing of mentally or physically disabled children in the pediatric departments in Eglfing-Haar (Katzur 2018), Kaufbeuren, and Ansbach using barbiturates or morphine-scopolamine is documented in witness testimonies and in typically recorded causes of death as bronchopneumonia. Murdered children with disabilities and their brains were of value during and after the war to neuropathologists involved in researching causes and forms of "child imbecility." In the late 1950s employees of the MPIP requested the files of children murdered in Eglfing-Haar, whose brain sections had ended up in the DBP at the DFA.⁴¹ This ethically questionable practice of the DFA in the postwar period of scientifically examining the brains or brain sections of murdered children became one of the most effective arguments provided by Anton von Braunmühl (1901-1957) to close the DBP.⁴² Schleussing, who had remained at the DFA as member of the DBP, together with Scholz as temporary DFA head, combatted the closing of the DP; it reopened in 1953 in the MPIP. When Schleussing retired in 1962, the last traces of this department vanished. The MPIP archive today contains only a handful of reports from the DP. To date, no trace has been found of the brain specimens from the DP except for those transferred to the collections of the DBP at the DFA, nor-apart from the brain accessions register of Scholz-has the register of autopsies and brain examinations been found.⁴³ The review of patient files from the psychiatric hospital in Kaufbeuren conducted by Patricia Heberer-Rice from the U.S. Holocaust Memorial Museum is thus relevant. This will enable the identification of neuropathological reports coming from the DP in Eglfing-Haar concerning patients whose names do not appear in the register of items received by the DBP. The difference will allow for an estimate of how many victims cannot be identified because of missing sources from the DP.

The project will identify as many victims as possible who were subject to unethical neuropathological research at the MPIP; the research networks underlying the use of victims of Nazi persecution, which mostly occurred after the war, will also be reconstructed, and the scientific use of the specimens to the present will be documented.

⁴¹See, for example, the Archives of the District of Upper Bavaria, Munich, Eglfing-Haar, patient file No 997, Hermann Ellmauthaler, murdered December 16, 1942, request for the patient file by Jürgen Peiffer from the DBP at the DFA from May 17, 1956.

⁴²Even though Anton v. Braunmühl became director in Eglfing-Haar, he had been involved in the high patient mortality in Eglfing-Haar during the war. His previous attempts either to become the head of the DP or to shut it down on the basis of economic and scientific arguments had failed. Hauptstaatsarchiv Munich, MInn No 105011, letters by Anton v. Braunmühl and Willibald Scholz to different departments of the Bavarian Ministry of the Interior and copies of their letters to the Government of Upper Bavaria, July 1947 to March 1949; HStaM MInn Nr. 105005, 1954–1960 letters of Hans Schleussing to departments of the Bavarian Ministry of the Interior; Archives of the District of Upper Bavaria, Munich, Eglfing-Haar, No 402, Osterhelder to v. Braunmühl, October 7, 1948.

⁴³Pathology records are only preserved for the months January to May 1939.

12 👄 P. WEINDLING ET AL.

The Genealogical-Demographic Department in Munich⁴⁴

As the "first research institution on psychiatric genetics in the world" (Roelcke 2002), the Genealogical-Demographic Department (*Genealogisch-Demographische Abteilung*, further on: GDA) of the DFA, founded in 1917, enjoyed a high degree of international renown. To Ernst Rüdin, head of the department, the rise of National Socialism and its race hygiene program promised new fields of activity, the opportunity to acquire political influence, as well as the mobilization of additional financial and other resources to support research activities grounded in Rüdin's method of empirical hereditary prognosis (*empirische Erbprognose*). This method was intended to legitimize and accompany the regime's racial hygiene measures—notably, forced sterilizations.⁴⁵

The extensive data collection required for the GDA research activities was made possible by collaborators, particularly in psychiatric institutions. This part of the project covers the GDA and aims to investigate the extent to which these networks resulted in the exchange of genetic or other medical information on patients, but also of specimens of potential victims of "euthanasia". An investigation into the methods used by the GDA, with its psychiatricgenetic emphasis when evaluating patients, will also be undertaken (in particular, whether and by whom research was conducted on living victims, which questions were pursued, and which specific methods were used). We will investigate the extent to which patient data complemented postmortem evaluations and histological research, and whether DFA neuropathological research using postmortem samples was embedded in psychiatric-genetic projects at Rüdin's GDA. Insofar as the fragmentary source base and project resources allow, the project aims to investigate the individual fates of the people affected, particularly in cases that appear to have involved killing under "decentralized euthanasia."

Of central importance is a collection of about 41,000 research subject files of the GDA and held at the MPIP. These files were compiled from the founding of the department and were in use until 1957.⁴⁶ About 20% relate to the timeframe 1939 to 1945.⁴⁷ Aside from Rüdin, those involved include the Austrian racial hygienist Friedrich Stumpfl (1902–1997; albeit only until 1938/1939); the holder of an SS scholarship, "Käthe" Katharina Hell (1899–death unknown); and epilepsy researcher Klaus Conrad (1905–1961). The case of Julius Deussen and his involvement in research on victims of child "euthanasia" shows the relevancy of these questions (Roelcke, Hohendorf, and Rotzoll 1998, 2000).

The Institute for Brain Research in Berlin-Buch⁴⁸

When Hugo Spatz was named director and Julius Hallervorden head of the Department of Histopathology at the KWIBR in Berlin-Buch, the institute was the largest and world-leading research institution in brain research, comprising nine departments following a reorganization in 1937. National Socialist reign and the war effort provided opportunities

⁴⁴Authors: Marion Zingler, Herwig Czech.

⁴⁵For a (partly problematic) biography of Rüdin, see Weber (1993); for a portrayal of Rüdin's research activities, see Roelcke (2000, 2002, 2006, 2008, 2012) and Roelcke, Hohendorf, and Rotzoll (1998, 2000).

⁴⁶These were all created before 1945, some long before. The fact that some were used over periods spanning many years was due to multiple uses of cases by various research projects.

⁴⁷E-mail from Dr. Britta Leise to Herwig Czech, December 13, 2019.

⁴⁸Axel Hüntelmann, Herwig Czech. The authors would like to acknowledge Annette Hinz-Wessels, who provided research for the project until August 2018, and Judith Hahn and Wolfgang Rose, who have also worked for the project as researchers, for their invaluable contributions.

in terms of research topics, funding, and research "material." First documented by war crimes investigator Leo Alexander (1905–1985) in 1945, since the 1980s historical research has shown that the institute received brain specimens from victims of "euthanasia" killings (Schmuhl 2000).

Following historical research in the late 1970s and 1980s regarding the stages of "euthanasia," seminal publications by attorney and writer Karl Friedrich Kaul (1906–1981), Klee, Aly, and Schmuhl were followed by regional historical studies on "euthanasia" killing centres and psychiatric institutions (see Hohendorf 2013). These works focused on the prehistory, programs, institutional infrastructure, and implementation of patient killing as well as on interactions with representatives of the state and party apparatus. Another line of historical research has focused on the victims of "euthanasia" and tried to reconstruct the patients' biographies (Brand-Claussen, Rotzoll, and Röske 2012; Falkenstein and Schneider 2012; Fuchs et al. 2007). In this context, medical research conducted on victims of "euthanasia" has been noted, but not systematically analyzed.

Neuropathologists dissected the brains and produced histological samples to analyze pathological changes in the brain structure and correlate (and categorize) clinical observations with histopathological observations. Peiffer identified special research interests pursued by Hallervorden and Spatz and documented that Hallervorden transferred at least 697 specimens from "euthanasia" victims to Dillenburg and then to Gießen when the Berlin institute was evacuated in 1944 (Peiffer 1999, 345; Schmuhl 2002, 605; Topp and Peiffer 2007). However, this reconstruction remained incomplete. In a 2015 publication, Paul Weindling elevated the number of specimens originating from "euthanasia" victims in Hallervorden's collection to 707 identified persons (Weindling 2015, p. 40).⁴⁹ Parallel to Peiffer's work, the close organizational ties between the KWIBR and psychiatric institutions in Brandenburg as well as the actors and institutions involved in the killing of patients were documented by the research of the MPG Presidential Commission. Spatz, who had worked at the DFA, maintained excellent connections to Southern Germany. Julius Hallervorden, before he became head of the histopathological department at the KWIBR, worked as Prosector (head of the DP) of all asylums in the state of Brandenburg and, from 1936 to 1937, at the state asylum in Potsdam, where he met Hans Heinze (1895-1983), one of the central perpetrators of the child "euthanasia" program (who was then the director and in 1938 continued in the same position as head of the state asylum in Görden; see Falk and Hauer 2007). Hallervorden continued to hold the position of Prosector while at the KWIBR (Peiffer, 1999).

Important questions remain: first and foremost, regarding the number and identity of "euthanasia" victims killed for research purposes whose brains and body parts were acquired by the KWIs, later MPIs; second, regarding a detailed study of individual victims' lives; and, third, regarding documentation of location and use of specimens over time. In contrast to the KWIP, no central admissions book (or register) of received brain specimens exists for the KWIBR. There are two numerical systems, combining the year and sequential number: Hugo Spatz started with the number followed by the year, whereas Julius Hallervorden started with the year followed by the number. Although many numbers can be matched with specific patients, there are many numbers that were assigned for which

⁴⁹As mentioned, Heinz Wässle recently reconstructed the origin of specimens designated as "series H," showing that many of them came from "T4" victims whose brains were delivered to Hallervorden without involvement of the *Prosector* in Brandenburg-Görden (Wässle 2017).

only surnames exist at the Archive of the MPG. Furthermore, there are some other alphanumeric systems (using prefixes like M, H, or G) that require further clarification. Given that Peiffer mentioned a total of 7874 cases⁵⁰ at the KWIBR (Peiffer 2000, 161), the first step was to identify further potential "euthanasia" victims by using documents from additional sources, most notably the patient files from the Brandenburg-Görden mental institution.⁵¹ Second—in line with criteria applied by the project team in Munich in their research on mental institutions in Bavaria—the circumstances of death of identified patients are investigated: Did they die of natural causes, were they killed in the context of the "euthanasia" programs, or were they murdered for research purposes—which on this scale would be unprecedented in history? Finally, we aim to reconstruct the individual lives of the patients and the "afterlives" of their body parts.

Another line of inquiry focuses on brain research. The scientific use of victims was reflected in publications, theses, and lectures of members, stipend beneficiaries, doctoral candidates, and others connected to the KWIBR. To reconstruct this use as related to each victim, the Vienna group has examined more than 1,800 works published between 1939 and 1990 related to the KWIBR and its successor institutions, as cited in annual reports and indices. Scientific articles by KWI scientists, based on identifying information, can help to identify patients, to verify a patient's identity, or to specify research interests. Analyzing this literature reveals the collaborative networks of neuroscientists who exchanged specimens with Hallervorden and colleagues: Some examples are Berthold Ostertag (1895–1975), Franz Seitelberger (1916–2007), Ernst Klenk (1896–1971), and Webb Haymaker (1902–1984).

With regard to the "material history" of brain slides, these specimens have developed a life of their own, indicated simply by the fact that we have specimens without any reference to the original patient. They were described, photographed, and exchanged between neurologists and they supported diagnoses and research findings. They allow for patterns and networks of neuropsychiatric research to be investigated.

Other victim categories from the Kaiser Wilhelm Institutes for Brain Research and for Psychiatry, 1933–1945⁵²

Brains came from three problematic sources in addition to those derived from "euthanasia" victims at psychiatric institutions: first, Polish male and female civilians, who were mostly Jewish; second, Allied prisoners of war; and, third, executed persons. In 1939, Hallervorden established a military medical research group in association with the pathologists of the Military Medical Academy: This was for study of injuries to the central nervous system.⁵³ This military unit meant that staff from the KWIBR in Berlin-Buch were not called up for

⁵⁰This includes approximately 2816 cases from the military, researched by Paul Weindling and his group, 1500 pertaining to Hallervorden's "Military Series" (each specimen with an M number), and 1316 pertaining to Hugo Spatz.

⁵¹On the other hand, the project also has to verify cases Peiffer evaluated as "euthanasia" victims, given that knowledge on Nazi psychiatry has evolved, new documents may have become accessible, and project resources now allow us to dig deeper than Peiffer might have been able to do at the time. Helga Kazke, whose brain Hallervorden received in 1940, had died of diphtheria one day after being admitted to a hospital, where she received antitoxin treatment (AMPG, III. Abt., Rep. 55, Nr. 19–2). It is unclear why she appears as a probable case of "euthanasia" in one of Peiffer's last lists of cases dating from 2004 (University Archive Tübingen, Personal Papers Peiffer Rep. 731, No. 342).

⁵²Authors: Paul Weindling, Michał Adam Palacz, and Aleksandra Loewenau (Oxford Group).

⁵³Leo Alexander, "Neuropathology and neurophysiology, including electro-encephalography, in wartime Germany," CIOS Item 24 Medical, Combined Intelligence Objectives Sub-Committee, July 20, 1945, 3–4.

frontline military service (in contrast to Schleussing, who saw frontline service).⁵⁴ The KWIBR researchers—Hallervorden, Bernhard Patzig (1890–1958), Werner-Joachim Eicke (1911–1988), and the electro-physiologist Alois Kornmüller (1905–1968)—remained at Berlin-Buch until April 25, 1944.⁵⁵

On brains transferred from German-occupied Poland

In 1940, concern arose that the military unit at Berlin-Buch lacked brains. An opportunity arose before the Czyste Jewish Hospital in Warsaw moved into the Warsaw Ghetto in January 1941. The German Military Archives series RH 12–23 contains documents of organization, publications on the brain specimen series denoted as *Militär* with "M" numbers (the designation for 1,500 brains in Hallervorden's collections, described as "military brains"), and pathology reports on individuals in German-occupied Poland, often with a report by Hallervorden and Patzig.⁵⁶ Military pathology in German-occupied Poland is covered by brain-accession registers and autopsy records.

Typhus (*Fleckfieber*) had become a problem in German-occupied Poland by December 1939. The expulsions from German-occupied territory that became the "Warthegau" meant that impoverished Jews found shelter at refuges in Warsaw. Lists of all patients suffering from infectious diseases in Warsaw hospitals were regularly submitted to Kurt Schrempf (1903–1964), the German medical officer (*Amtsarzt*).⁵⁷ The German military and health authorities required autopsies of *Fleckfieber* cases. Some 197 specimens from Warsaw are listed in the KWIBR under M-numbers, including 188 *Fleckfieber* cases involving brain inflammation. The extracted brains and autopsy reports were transferred over military pathology networks to the Special Office for Research of War Damage to the Central Nervous System (*Sonderstelle zur Erforschung der Kriegsschäden des Zentralnervensystems*) at Berlin-Buch.⁵⁸ Hallervorden was *Kriegsassistenzarzt* (a civilian physician attached to the military), directing the research. *Fleckfieber* was associated with encephalitis. Hallervorden analyzed the process of encephalitis with edemas, abscesses and fluid changes.

The research has identified Polish Jews who died from *Fleckfieber*. Some deceased were forced from German-annexed Warthegau, and contracted *Fleckfieber* in overcrowded refugee shelters. These are victims of the Nazi state's racial persecution. Using patient records from the Czyste Jewish Hospital and Chocimska Street Hospital for Infectious Patients in Warsaw, 149 *Fleckfieber* victims, including 129 Jews (78 men and 51 women) and 20 non-Jewish Poles (12 men and eight women) have been identified by name, gender, and age of death.⁵⁹ Additional cases were indicated by the Pathological-Anatomical Military

⁵⁴Records of autopsies performed by Hans Schleussing in German-occupied Poland, German-occupied Ukraine, and Romania, 1941–1944, Bundesarchiv Militärarchiv in Freiburg im Breisgau (hereafter BA-MA), RH 12–23, No. 2727, 3149, 3172, 3173, 3176, 3774, 3192, 3205, 3208 and 4367.

⁵⁵Payroll of the KWIBR, April 1944, AMPG, Abt. I, Rep. 1, Nr. 1602–6.

⁵⁶Peiffer (2000, 161) lists 1500 military cases for Hallervorden and another 1316 for Hugo Spatz.

⁵⁷Records of infectious diseases patients from different hospitals in Warsaw, 1939–1940, State Archive in Warsaw, Collection No. 483, Der Obmann des Judenrates in Warschau, 1940–1942, No. 46–66.

⁵⁸ Julius Hallervorden's scientific progress report on the first two years of the Special Office for the Research of War Damage to the Central Nervous System, 1941, BA-MA, RH 12–23, No. 571.

⁵⁹Patient records of typhus victims from the Czyste Jewish Hospital in Warsaw, 1939–1940, State Archive in Warsaw, Collection No. 483, Der Obmann des Judenrates in Warschau, 1940–1942, No. 57 and 66 and Epidemiological data on typhus, 1940–1943, State Archive in Warsaw, Collection No. 1293, Spuścizna dr. Mikołaja Łąckiego, No. 20; see also autopsy records sent to the Military Medical Academy in Berlin, with enclosed brain autopsies by Hallervorden and Patzig, BA-MA, RH 12–23, No. 3081–4147.

16 👄 P. WEINDLING ET AL.

Investigation Units in Warsaw and Cracow.⁶⁰ Overall, an additional 40 persons can be identified from the index to the Military Medical Academy pathology records, where they are classified by disease. Although 15 brains from Warsaw are anonymous in the Series M, researchers involved in this project have identified two by name. Autopsy records, transferred to the Federal German Military Archive in 2002, enable further identifications.⁶¹

Lublin

There are 43 brain specimens from Lublin in the military series of M-numbered specimens, including 13 *Fleckfieber* cases. Open cases can be identified by means of the name index. For example, M-658, Nudelstajn, diagnosed with "endocarditis," can be identified as Mania Nudelstejn, a Polish–Jewish woman, aged 36, from Nałęczów. According to her preserved autopsy record, Hallervorden and Patzig provided a histological report and diagnosis on September 25, 1942.⁶² We have identified eight brains from Jewish victims of *Fleckfieber*.⁶³

Other victims

Three other Polish victims have been identified in the Series M: Two Polish *Fleckfieber* patients were from Częstochowa (one man and one woman).⁶⁴ A Polish female forced laborer was diagnosed with "encephalitis. myocarditis. pneumonie"; her brain was sent by Major (*Oberstabsarzt*) Karl Plenge (1892–1966), director of the pathological department at the Municipal Hospital in Berlin-Neukölln.⁶⁵

There are around 200 specimens of Polish (mainly Jewish) victims in the Series M; however, a precise number cannot be given at this stage as it is unclear whether the unidentified cases from Warsaw and Lublin were Polish/Jewish civilians or German soldiers. Brains of Polish/Jewish victims listed in the Series M were evacuated from Berlin-Buch to Dillenburg on April 25, 1944.⁶⁶

According to the neuropathologist Peiffer, 185 Polish Jews from the Warsaw Ghetto and 17 *Fleckfieber* cases from the Lublin area are in the Series M (Peiffer 1997). The evidence significantly revises Peiffer's evaluation and identifies individual victims. The revised account suggests that the brains from Warsaw were transferred *before* the move of the Czyste Hospital into the Ghetto, and has revealed the victims' medical history as well as

⁶⁰"Pathologisch-anatomische Heeresuntersuchungsstelle Krakau, Sektionstagebuch," 1940, and "Pathologisch-anatomische Heeresuntersuchungsstelle Warschau, Sektionstagebuch," 1941, BA-MA, RH 53–23, Nos. 107 and 108.

⁶¹Cf. M-418 and M-427, AMPG, III. Abt., Rep. 55, No. 55–8; Militär with autopsy records of Paweł Garliński (K.II.2 47) and Stanisław Pado (K.II.2 48), 1941, BA-MA, RH 12–23, No. 3147, and prison records of Stanisław Pado and Paweł Garliński, 1940–1941, State Archive in Warsaw–Milanówek branch, Collection No. 657, Więzienie Karne Warszawa–Mokotów, No. 20612 22540.

⁶²Cf. M-658, AMPG, III. Abt., Rep. 55, No. 55–8 Militär with autopsy records of Mania Nudelstejn (M.II 1034), 1941–1942, BA-MA, RH 12–23, No. 3341.

⁶³Autopsy records of typhus (German: *Fleckfieber*) cases, 1940–1941, BA-MA, RH 12–23, Nos. 3146 and 3147.

⁶⁴Cf. M-40 and M-41, AMPG, III. Abt., Rep. 55, No. 55–8 Militär with Autopsy records of Stanisława Borowiecka (K.II.2 4) and Jerzy Woźnica (K.II.2 3), 1940, BA-MA, RH 12–23, No. 3146, and "Pathologisch-anatomische Heeresuntersuchungsstelle Krakau, Sektionstagebuch" (Lfd Nr. 60 and 64), 1940, BA-MA, RH 53–23, No. 107.

⁶⁵Cf, M-1265, AMPG, III. Abt., Rep. 55, No. 55–8 Militär with letter from Dr. Werner-Joachim Eicke, Hallervorden's assistant at KWIBR, to Prof. Dr. Edmund Randerath, Pathological Institute of the Military Medical Academy in Berlin, December 14, 1943, BA-MA, RH 12–23, No. 2093.

⁶⁶The specimens from the M numbered series of brain specimens, listed as "Militär" (AMPG, III. Abt., Rep 55, No. 55–8 Militär), are last mentioned in an undated [mid-1960s?] inventory of Cabinet 524 from the MPIBR in Frankfurt am Main (AMPG, III. Abt., Rep 55, Nos. 55–57).

names, age, religious orientation, and other information. These findings enable the historically overlooked context of the German medical administration of Warsaw during 1940 to be reconstructed. The abrasive medical officer Kurt Schrempf supervised the dissection of Jewish victims prior to his dismissal. It was possible to reconstruct the unknown biography of the German–Jewish physician Siegfried Gilde (1905–1943), who—after three years' arrest in the Soviet Union, where he found refuge—was delivered back to the Germans in occupied Poland in 1940.⁶⁷ He found employment as a pathologist at the Czyste Jewish Hospital in Warsaw, where he dissected brains of *Fleckfieber* victims.⁶⁸ In January 1941, he moved with the Czyste Hospital into the Warsaw Ghetto. He was murdered in 1943, most probably in Treblinka. Surviving relatives have been informed about his tragic history.

Evidence has come to light that unethically obtained brains from Series M were exploited in published research. Hallervorden's article on pathological changes to the central nervous system caused by typhus appeared in *Der Deutsche Militärarzt* in 1943 and included reproductions of five brain tissue sections stained in thionin. A comparison with named photographs of stained brain sections attached to Hallervorden's internal report for the Military Medical Academy in Berlin reveals that two of those tissue samples were from brains of a woman from Częstochowa and a Jewish man from Warsaw.⁶⁹

Weindling identified two brains of Polish Jews from the Series M in August 2019 in the Edinger Institute, University of Frankfurt.

Prisoners of war

There are 11 brains from the DFA and six from the KWIBR. Research on prisoners of war (POW) body parts violated Article 76 of the 1929 Geneva Convention, which obligated belligerents to honorably bury soldiers who died in captivity. Files of 13 French prisoners have been identified at the Ministry of Defense archives at Caen, France. There were nine whose brains went to Munich and four to Berlin-Buch. Seven died at the *Kriegsgefangenen-Lazarett Freising* (camp hospital for Stalag VII A) during 1941 from meningitis or related illnesses. One soldier was a psychiatric patient at Eglfing-Haar. The files show that three soldiers had an Islamic background (two were referred to as "negroes") and one was Jewish. Other brains were from a Scottish Highlander and Gaelic-speaking soldier, as well as Soviet and Polish prisoners. A brain of an anonymous Polish POW who died in France went to Hallervorden

⁶⁷Gilde, Siegfried file, Bodleian Library, Oxford, Society for the Protection of Science and Learning, MS. SPSL 491–1.

⁶⁸Gilde, Siegfried file, 1940–1941, Main Medical Library in Warsaw, documents of the Warsaw-Białystok Chamber of Physicians; Jakub Penson, "Cechy kliniczne epidemii duru plamistego w latach 1940 1941/1942 w Warszawie. Badania własne nad przemianą azotową ze szczególnym uwzględnieniem nerek. Metoda wczesnego rozpoznawania," *Polski Tygodnik Lekarski* 1.46–47 (1946), 1399–1404; 1.49–50 (1946), 1478–1487; 1.51 (1946), 1538–1542; 1.52 (1946), 1543– 1569; Transcript of an interview with Dr. Marek Balin, Timberlake, Ohio, May 16, 1983, McMaster University Health Sciences Library, Hamilton, Ontario, HCM 7–83, p. 11; Henry Fenisgetin, "The Holocaust and I: Memoirs of a survivor by Dr. Henry Fenigstein as told to Saundra Collis," unpublished, undated [1990s], part 2, pp. 136–137, courtesy of Dr. Maria Ciesielska, Lazarski University in Warsaw.

⁶⁹Cf. Julius Hallervorden, "Die pathologisch-anatomischen Veränderungen im Zentralnervensystem beim Fleckfieber. Mit 5 Abbildungen," Der Deutsche Militärarzt, 8.1 (1943), image 3 on p. 28 and image 5 on p. 29, with Julius Hallervorden's scientific progress report on the first two years of the Special Office for the Research of War Damage to the Central Nervous System, 1941, BA-MA, RH 12–23, No. 571, image 1b (M-103 Ways) and image 2 (M-40 Borowiecka). It should be noted that Hallervorden or his typist made a mistake as the inventory of Series M specimens lists M-103 as "Baumgart" and M-102 as "Ways," see AMPG, III. Abt., Rep. 55, No. 55–8 Militär. Both M-102 and M-103 have been identified by us as Jewish men from Warsaw.

18 👄 P. WEINDLING ET AL.

and is included in the Series M as "M-280 [autopsy no.] 180/40."⁷⁰ A comparison of German pathology reports and the database of Polish victims during World War II enabled identification of this POW as Jan Grzesiak (1912–1940), who died in *Kriegsgefangenenlazarett Grand Séminaire* in Rennes and is buried in grave "m G6" at the Polish war cemetery in Urville-Langannerie, Normandy.⁷¹

Executed persons' brains that came to the Department of Neuropathology at the DFA

The brains of 40 persons executed in different prisons came to the Department of Neuropathology at the DFA. Thirty-two were executed in the period between 1933–1939, and eight in 1940–1942, when the last brains of the executed arrived. For the burial in 1990, a division was made by the MPG legal advisor, Peter Gutjahr-Löser (b. 1940), between 14 "justly" executed at Stadelheim prison, six "unjustly" executed, and four ambivalent cases. The criteria were highly problematic, illustrated by the inclusion of Polish forced laborers who did not commit murder in both "unjustly" executed and ambivalent categories.⁷² In fact, Gutjahr-Löser's recommendations for burial were not consistently implemented, as brains of the executed from all three categories are still in the collection at the MPIP, pending the recommendations following from this project.

Concentration camp victim/s from Dachau

The research attempts to identify the single or multiple brains from Dachau low-pressure experiments coming to Spatz.⁷³ Pathology records at Schwabing Hospital were consulted, but pages from the register of autopsies were torn out. Sources consulted are the *Gedenkbuch für die Toten des Konzentrationslagers Dachau (Memorial Book for the Dead of Dachau Concentration Camp)* and International Tracing Service records (KZ-Gedenkstätte Dachau 2011). The database of victims compiled by Paul Weindling, Aleksandra Loewenau, and Anna von Villiez contains details of 147 victims of low-pressure experiments, but there is no indication as to whose brains came to Spatz (Weindling et al., 2016).

Conclusion and outlook

The work presented here is far from complete; the research is scheduled to run until October 2023. Despite previous attempts to resolve this aspect of the MPG's past, new documents and suspicious specimens continue to be found. The latest example is the Institute of Neurology (Edinger Institute) in Frankfurt am Main, which between 1956 and 2007 was partially merged with the MPIBR. After attempts since early 2016 by Heinz

⁷⁰Julius Hallervorden's scientific progress report on the first two years of the Special Office for the Research of War Damage to the Central Nervous System, 1941, p. 3 and image 3 (M-280 "S. Nr. 180/40"), BA-MA, RH 12–23, No. 571, and autopsy records of an anonymous Polish POW (K.II.6 38), 1940–1941, BA-MA, RH 12–23, No. 4377.

⁷¹Entry on Jan Grzesiak (born Nov. 11, 1912; died Oct. 17, 1940) in *Straty Osobowe i Ofiary represji pod okupacją niemiecką* 1939–1945 online database available at http://straty.pl.

⁷²Gutjahr-Löser, verification of the reasons for execution, February 13, 1989, AMPG, II. Abt., Rep. 1F, Az A-II-7a, Besondere Aufgaben Hirnschnittsammlung. Cf. prison records of Józef Bazak, Andrzej Głuszak, and Czesław Rokwisz, Staatsarchiv München, JVA München, No. 40, 216 and 583.

⁷³Rascher to Romberg, January 3,1944, Bundesarchiv Berlin, NS 21/923; and Rascher to Himmler, May 11, 1942, Bundesarchiv Berlin, NS 19/1580.

Wässle and later Paul Weindling to determine whether specimens from the Nazi period were present in the institute collections were unsuccessful, the institute in August 2019 for the first time disclosed information that enabled identification of two brain specimens in the institute's museum collection as stemming from Jewish Polish citizens who died under German occupation. It was also possible to identify one person killed in the T4 extermination center Bernburg, and there are cases requiring further research.

Once the collections in Frankfurt are analyzed and the biographies of victims and a history of the use of brain specimens entered in the project database, it will be clear to what extent brain research in the context of the KWG and MPG relied on specimens from victims. It will be possible to compare these victims with similar instances, such as 106 children's brains from Berlin Wittenau Psychiatric Hospital researched by the neuropathologist Ostertag (Weindling 2021). Recommendations will be made to the MPG as to further steps concerning the specimens from Nazi victims and those for which such a provenance cannot be excluded. All specimens of questionable origin will be buried with dignity, and the victims commemorated. There will be outreach to family members to include them in decision making and to obtain biographical information. The biographies will be published online and in a memorial book. More than 75 years after Europe's liberation from Nazi rule, it is time to commemorate the victims as the individuals they were before their mortal remains ended up as "research material."

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No potential conflict of interest was reported by the author(s).

Author contributions

Paul Weindling authored the section "From Denial to Provenance Research" as well as contributing to its introduction. Gerrit Hohendorf, Stephanie Neuner, Annemarie Kinzelbach, and Jasmin Kindel provided the section on the German Institute of Psychiatry (Deutsche Forschungsanstalt für Psychiatrie, DFA). The Section on the Genealogical-Demographic Department (Genealogischdemographische Abteilung, GDA) in Munich was written by Marion Zingler and Herwig Czech; the section on the Institute for Brain Research in Berlin-Buch, by Axel Hüntelmann and Herwig Czech. Paul Weindling, Michał Adam Palacz, and Aleksandra Loewenau are the authors of the section on "Other Victim Categories," covering both the Institute for Brain-Research and the German Institute of Psychiatry. Paul Weindling, Gerrit Hohendorf, and Herwig Czech jointly edited the entire text. All authors approved the final article. Tim Corbett and Paul Kuglitsch helped with language editing.

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20 🔄 P. WEINDLING ET AL.

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22 😔 P. WEINDLING ET AL.

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