



## Commentary to Habilitation Thesis

Throughout her professional career, the aspirant has been dealing with myeloid malignancies (acute and chronic myeloid leukemia, Ph-negative myeloproliferative neoplasias). Infectious complications including opportunistic infections and severe COVID-19, dominated by high-risk patients with acute myeloid leukemia and patients after allogeneic hematopoietic stem cell transplantation (ALO-HSCT), are among the major life-threatening complications, and their management is an essential part of care for these patients. The overall aspirants' H-index 10 according to WOS corresponds to the professional focus of the candidate on this complex issue. As part of her habilitation thesis, the author focused specifically on opportunistic infections, especially invasive fungal diseases, and COVID-19.

**Background.** Infectious diseases are principal causes of morbidity and mortality among high-risk immunocompromised patients with hematological malignancies. Among neutropenic patients, fever, termed febrile neutropenia, is often the singular manifestation of infection, requiring prompt initiation of broad-spectrum potent empirical antibiotic treatment. Moreover, high-risk patients with prolonged and profound neutropenia and those following ALO-HSCT are at risk of developing invasive fungal diseases (IFD). Although several potent antifungals are currently available, successful IFD treatment is often hampered by limited diagnostic options. Subsequent delay of antifungal therapy initiation is a significant factor contributing to the impaired survival of immunocompromised patients. Clinical symptoms and imaging findings are non-specific, and IFD diagnosis is based on probability degree determination meeting host, microbiological and clinical criteria. Conventional cytological, culture and histological procedures denote low sensitivity during early IFD stages, unlike non-culture-based procedures, which render both serological identification of fungal cell wall antigens, especially galactomannan (GM) and 1,3-beta-D-glucan (BDG), and, conversely, fungal nucleic acid detection by molecular biological mechanisms. These procedures have the potential to accelerate and refine IFD diagnosis and, consequently, targeted antifungal treatment.

Furthermore, antifungal therapy optimization via monitoring azole plasma levels is equally essential.

During the recent pandemic, SARS-CoV-2 (Severe Acute Respiratory Syndrom-CoronaVirus-2) infection was a primary cause of communicable complications while significantly increasing hematological patient mortality.

**Aims.** Our habilitation premise centers around 2 key objectives reflecting current challenges regarding immunocompromised patient comprehensive care. The first goal was to optimize IFD diagnosis using non-culture-based methods--galactomannan and 1,3-beta-D-glucan--followed by early initiation of antifungal therapy, while optimizing azole antifungals treatment via plasma level monitoring. Our second objective was to detail COVID-19 symptomatology monitoring among the general Czech population in connection with viral load. With hematological patients, data were attained relating to the epidemiology, course, and prognosis of COVID-19 along with treatment optimization.

**Methods.** The submitted habilitation dissertation embodies an annotated set of a total of 29 applicants' publications sorted thematically. Certain candidate articles are provided for an overview "in extenso", and some only in the form of a first page and an abstract, while "in extenso" are listed in a separate book: *Appendices "In Extenso" to Habilitation Thesis*. The author's contributions to these articles are summarized in tables with special attention to the experimental work, supervision, manuscript composition, and research direction.

**Results.** Regarding our first objective, we affirmed the crucial role of GM determination from serum and bronchoalveolar lavage (BAL) fluid in the diagnosis of invasive pulmonary aspergillosis (IPA) and evaluated a number of factors affecting test quality in IPA prediction (current antifungal therapy, gastrointestinal mucositis, lavage sample volume obtained by BAL, neutropenia depth). Considering IFD prediction using BDG in serum and BAL fluid, we identified acceptable sensitivity and specificity, albeit with a low positive predictive test value, both in IFD screening and IPA diagnosis. Neither the combination of both materials nor the new BDG optimal cut-off led to a significant improvement in IPA diagnosis test quality. Both the higher absolute neutrophil count at the time of BAL and the higher aspirated BAL fluid volume significantly exacerbated BDG assay performance. Concerning probable and proven IPA prediction, the BDG test did not surpass the GM test. Consequently, we've introduced into routine clinical practice the rapid detection and identification of a fungal pathogen in BAL fluid

using a panfungal polymerase chain reaction (PCR) together with high resolution melting (HRM) analysis.

In terms of our second objective, COVID-19 symptomatology relevant to SARS-CoV-2 viral load in the general Czech population during the first pandemic wave was evaluated in detail via telemedicine. Among hematological patients, higher COVID 19 mortality was confirmed when compared with the general population and worldwide data. Still, during the pandemic, mortality was significantly reduced when specific treatment against SARS-CoV-2 was part of routine clinical practice. Combined treatment of remdesivir and convalescent plasma with a high titer of virus-neutralizing antibodies resulted in reduced mortality among hematologic patients irrespective of baseline pneumonia. Similarly, a prospective study analyzing the use of anti-SARS-CoV-2 neutralizing monoclonal antibodies recorded mortality reduction among patients with hematological malignancies compared to a cohort of hematological patients without therapy at Czech hematological centers.

**Summary.** Our timely habilitation results substantially and definitively contribute towards optimization of IFD and COVID-19 management among immunocompromised patients with hematological malignancy.

[1] **WEINBERGEROVA, B.**, Z. RACIL, I. KOCMANOVA, a J. MAYER. Bakteriální infekce. In: CETKOVSKÝ, P., J. MAYER, J. STARÝ a M. HRIČINOVÁ. *Transplantace kostní dřeně a periferních hematopoetických buněk*. Praha, Czechia: Galén, 2016. s. 129-131. ISBN 978-80-7492-267-1.

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
80	80	80	80

[2] RÁČIL, Z., **B. WEINBERGEROVÁ**, I. KOCMANOVA, a J. MAYER. Virové infekce. In: ADAM, Zdeněk, Marta KREJČÍ a Jiří VORLÍČEK. *Obecná onkologie*. Praha: Galén, 2011. S. 363-364. ISBN 978-80-7262-715-8.

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[3] RÁČIL, Z., **B. WEINBERGEROVÁ**, I. KOCMANOVA, a J. MAYER. Pneumonie způsobená *Pneumocystis jiroveci* (carinii). In: ADAM, Zdeněk, Marta KREJČÍ a Jiří VORLÍČEK. *Obecná onkologie*. Praha: Galén, 2011. s. 361-362. ISBN 978-80-7262-715-8.

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[4] RÁČIL, Z., **B. WEINBERGEROVÁ**, I. KOCMANOVA, a J. MAYER. Febrilní neutropenie. In: ADAM, Zdeněk, Marta KREJČÍ a Jiří VORLÍČEK. *Obecná onkologie*. Praha: Galén, 2011. s. 349-359. ISBN 978-80-7262-715-8.

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[5] **WEINBERGEROVA, B.**, Z. RACIL, I. KOCMANOVA, a J. MAYER. Horečka nejasného původu, systémové infekce. In: CETKOVSKÝ, P., J. MAYER, J. STARÝ a M. HRIČINOVÁ.

*Transplantace kostní dřeně a periferních hematopoetických buněk.* Praha, Czechia: Galén, 2016. s. 122-128. ISBN 978-80-7492-267-1.

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
80	80	80	80

[6] RÁČIL, Zdeněk, Iva KOCHMANOVÁ, Leoš KŘEN, Lucie KŘIKAVOVÁ, Jiří MAYER a Barbora WEINBERGEROVÁ. Invazívni mykotické infekce u onkologických nemocných: změny v epidemiologii a diagnostice. *Postgraduální medicína: odborný časopis pro lékaře.* 2007, 9(3), 240–252. ISSN ISSN: 1212-4184.

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
20	20	20	20

[7] RÁČIL, Z., B. WEINBERGEROVÁ, I. KOCHMANOVÁ, a J. MAYER. Mykotické infekce. In: ADAM, Zdeněk, Marta KREJČÍ a Jiří VORLÍČEK. *Obecná onkologie.* Praha: Galén, 2011. S. 359-360. ISBN 978-80-7262-715-8.

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[8] WEINBERGEROVÁ, B., T. KABUT, I. KOCHMANOVÁ, L. DRGOŇA, M. KOUBA, M. HRIČINOVÁ, J. GABZDILOVÁ, T. GUMAN, V. PETEČUKOVÁ, J. NOVÁK, K. FORSTEROVÁ, J. HABER, B. ŽIAKOVÁ, E. BOJTÁROVÁ, A. ZAVŘELOVÁ, M. KARAS, V. CHRENKOVÁ, P. SEDLÁČEK, B. TKÁČIKOVÁ, P. MÚDRÝ, N. MALLÁTOVÁ, P. TIMR, A. KOLENOVÁ, D. TANUŠKOVÁ, J. HORÁKOVÁ, M. NAVRÁTIL, J. CHUDEJ, J. SOKOL, M. ROLENCOVÁ, P. ŽÁK, P. CETKOVSKÝ, J. MAYER a Z. RÁČIL. Změny v epidemiologii invazivních mykotických infekcí v českých a slovenských hematoonkologických centrech v letech 2005–2017: analýza dat FIND. *Transfuze a Hematologie Dnes.* 2019, 25(2), 186–196.

Document Type: Article; SJR = 0,122; Category: HEMATOLOGY Q4

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
80	80	80	80

[9] RÁČIL, Z., I. KOCMANOVÁ, **B. WAGNEROVÁ**, M. LENGEROVÁ a J. MAYER. Časná diagnostika invazivních mykotických infekcí u hematoonkologických nemocných pomocí sérologických metod. *Vnitri Lekarstvi*. 2007, **53**(9), 990–999.

**Document Type:** Review; **SJR** = 0,138; **Category:** CARDIOLOGY AND CARDIOVASCULAR MEDICINE Q4

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[10] RÁČIL, Z., I. KOCMANOVÁ, **B. WAGNEROVÁ**, J. WINTEROVÁ a J. MAYER. Využití detekce galaktomannanu pro časnou diagnostiku invazivní aspergilózy. *Klinicka Mikrobiologie a Infekcni Lekarstvi*. 2007, **13**(5), 176–183.

**Document Type:** Review; **SJR** = 0,130; **Category:** INFECTIOUS DISEASES Q4 + MICROBIOLOGY Q4

(Listed "in extenso" in a separate book: Appendices "In Extenso" to Habilitation Thesis)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[11] **WEINBERGEROVA, B.**, I. KOCMANOVA, Z. RACIL a J. MAYER. Serological Approaches. In: T LION, ed. *HUMAN FUNGAL PATHOGEN IDENTIFICATION: METHODS AND PROTOCOLS* [online]. 2017. s. 209–221. ISBN 978-1-4939-6513-7. Dostupné z: doi:[10.1007/978-1-4939-6515-1\\_11](https://doi.org/10.1007/978-1-4939-6515-1_11)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
80	80	80	80

[12] STEMLER, J, C BRUNS, SC MELLINGHOFF, N ALAKEL, H AKAN, M ANANDA-RAJAH, J AUBERGER, P BOJKO, PH CHANDRASEKAR, M CHAYAKULKEEREE, JA COZZI, EA DE KORT, AH GROLL, CH HEATH, L HENZE, MH JIMENEZ, SS KANJ, N KHANNA, M KOLDEHOFF, DG LEE, A MAGER, F MARCHESI, R MARTINO-BUFARULL, M NUCCI, J OKSI, L PAGANO, B PHILLIPS, J PRATTES, A PYRPASOPOULOU, W RABITSCH, E SCHALK, M SCHMIDT-HIEBER, N SIDHARTHAN, P SOLER-PALACIN, A STERN, **B WEINBERGEROVA**, A EL ZAKHEM, OA CORNELY a P KOEHLER. Baseline Chest Computed Tomography as

Standard of Care in High-Risk Hematology Patients. *JOURNAL OF FUNGI* [online]. 2020, 6(1). ISSN 2309-608X. Dostupné z: doi:10.3390/jof6010036

**Document Type: Article; IF = 5,816; Quartile by IF: MICROBIOLOGY Q1 +**

**MYCOLOGY Q1; Quartile by AIS: MICROBIOLOGY Q1 + MYCOLOGY Q1**

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
5	5	5	5

[13] RACIL, Z, **B WEINBERGEROVA**, I KOCMANOVA, J MUZIK, M KOUBA, L DRGONA, L MASAROVA, T GUMANG, E TOHOVA, K FORSTEROVA, J HABER, B ZIAKOVA, E BOJTAROVA, J VYDRA, P MUDRY, R FORALOVA, D SEJNOVA, N MALLATOVA, V KANDRNAL, P CETKOVSKY a J MAYER. Invasive aspergillosis in patients with hematological malignancies in the Czech and Slovak republics: Fungal InfectioN Database (FIND) analysis, 2005-2009. *INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES* [online]. 2013, 17(2), E101–E109. ISSN 1201-9712. Dostupné z: doi:10.1016/j.ijid.2012.09.004

**Document Type: Article; IF = 2,330; Quartile by IF: INFECTIOUS DISEASES Q3; Quartile by AIS: INFECTIOUS DISEASES Q3**

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
30	30	30	30

[14] RACIL, Z, J WINTEROVA, M KOUBA, P ZAK, L MALASKOVA, L BURESOVA, M TOSKOVA, M LENGEROVA, I KOCMANOVA, **B WEINBERGEROVA**, S TIMILSINA, M ROLENCOVA, P CETKOVSKY a J MAYER. Monitoring trough voriconazole plasma concentrations in haematological patients: real life multicentre experience. *MYCOSES* [online]. 2012, 55(6), 483–492. ISSN 0933-7407. Dostupné z: doi:10.1111/j.1439-0507.2012.02186.x

**Document Type: Article; IF = 1,278; Quartile by IF: MYCOLOGY Q3 + DERMATOLOGY Q3; Quartile by AIS: MYCOLOGY Q3 + DERMATOLOGY Q3**

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
30	30	20	50

[15] **WEINBERGEROVA, B**, T KABUT, I KOCMANOVA, M LENGEROVA, Z POSPISIL, Z KRÁL a J MAYER. Bronchoalveolar lavage fluid and serum 1,3-beta-D-glucan testing for

invasive pulmonary aspergillosis diagnosis in hematological patients: the role of factors affecting assay performance. SCIENTIFIC REPORTS [online]. 2020, 10(1). ISSN 2045-2322. Dostupné z: doi:10.1038/s41598-020-75132-3

**Document Type: Article; IF = 4,38; Quartile by IF: MULTIDISCIPLINARY SCIENCES Q1; Quartile by AIS: MULTIDISCIPLINARY SCIENCES Q2**

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
80	80	80	80

[16] RACIL, Z, I KOCMANOVA, M LENGEROVA, B WEINBERGEROVA, L BURESOVA, M TOSKOVA, J WINTEROVA, S TIMILSINA, I RODRIGUEZ a J MAYER. Difficulties in using 1,3-beta-D-glucan as the screening test for the early diagnosis of invasive fungal infections in patients with haematological malignancies - high frequency of false-positive results and their analysis. JOURNAL OF MEDICAL MICROBIOLOGY [online]. 2010, 59(9), 1016–1022. ISSN 0022-2615. Dostupné z: doi:[10.1099/jmm.0.019299-0](https://doi.org/10.1099/jmm.0.019299-0)

**Document Type: Article; IF = 2,380; Quartile by IF: MICROBIOLOGY Q3; Quartile by AIS: MICROBIOLOGY Q2**

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
25	25	25	25

[17] RACIL, Z, I KOCMANOVA, M TOSKOVA, L BURESOVA, B WEINBERGEROVA, M LENGEROVA, M ROLENOVA, J WINTEROVA, K HRNCIROVA, P VOLFOVA, J SKRICKOVA a J MAYER. Galactomannan detection in bronchoalveolar lavage fluid for the diagnosis of invasive aspergillosis in patients with hematological diseases-the role of factors affecting assay performance. INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES [online]. 2011, 15(12), E874–E881. ISSN 1201-9712. Dostupné z: doi:[10.1016/j.ijid.2011.09.011](https://doi.org/10.1016/j.ijid.2011.09.011)

**Document Type: Article; IF = 1,938; Quartile by IF: INFECTIOUS DISEASES Q3; Quartile by AIS: INFECTIOUS DISEASES Q3**

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
30	30	30	30

[18] RACIL, Z, I KOCMANOVA, B WEINBERGEROVA, M TOSKOVA, J WINTEROVA, M LENGEROVA, L BURESOVA, S TIMILSINA a J MAYER. Mucositis does not lead to false-positivity of the Platelia Aspergillus enzyme-linked immunosorbent assay. EUROPEAN

*JOURNAL OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES* [online]. 2010, 29(7), 851–855. ISSN 0934-9723. Dostupné z: doi:10.1007/s10096-010-0938-7

**Document Type:** Article; **IF = 2,631;** **Quartile by IF:** INFECTIOUS DISEASES Q2 + MICROBIOLOGY Q2; **Quartile by AIS:** INFECTIOUS DISEASES Q2 + MICROBIOLOGY Q2

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
30	30	30	30

[19] CRUCIANI, M, PL WHITE, C MENGOLI, J LOFFLER, CO MORTON, L KLINGSPOR, D BUCHHEIDT, J MAERTENS, WJ HEINZ, TR ROGERS, B WEINBERGEROVA, A WARRIS, DEA LOCKHART, B JONES, C CORDONNIER, JP DONNELLY, RA BARNES, a FUNGAL PCR INITIATIVE. The impact of anti-mould prophylaxis on Aspergillus PCR blood testing for the diagnosis of invasive aspergillosis. *JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY* [online]. 2021, 76(3), 635–638. ISSN 0305-7453. Dostupné z: doi:10.1093/jac/dkaa498

**Document Type:** Article; **IF = 5,79;** **Quartile by IF:** INFECTIOUS DISEASES Q1 + MICROBIOLOGY Q1 + PHARMACOLOGY & PHARMACY Q1; **Quartile by AIS:** INFECTIOUS DISEASES Q1 + MICROBIOLOGY Q1 + PHARMACOLOGY & PHARMACY Q1 (data from 2020)

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
5	5	5	5

[20] HRNCIROVA, K, M LENGEROVA, I KOCMANOVA, Z RACIL, P VOLFOVA, D PALOUSOVA, M MOULIS, B WEINBERGEROVA, J WINTEROVA, M TOSKOVA, S POSPISILOVA a J MAYER. Rapid Detection and Identification of Mucormycetes from Culture and Tissue Samples by Use of High-Resolution Melt Analysis. *JOURNAL OF CLINICAL MICROBIOLOGY* [online]. 2010, 48(9), 3392–3394. ISSN 0095-1137. Dostupné z: doi:10.1128/JCM.01109-10

**Document Type:** Article; **IF = 4,220;** **Quartile by IF:** MICROBIOLOGY Q1; **Quartile by AIS:** MICROBIOLOGY Q1

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)

<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
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[21] LENGEROVA, M, Z RACIL, K HRNCIROVA, I KOCMANOVA, P VOLFOVA, D RICNA, P BEJDAK, M MOULIS, Z PAVLOVSKY, B WEINBERGEROVA, M TOSKOVA a J MAYER. Rapid Detection and Identification of Mucormycetes in Bronchoalveolar Lavage Samples from Immunocompromised Patients with Pulmonary Infiltrates by Use of High-Resolution Melt Analysis. *JOURNAL OF CLINICAL MICROBIOLOGY* [online]. 2014, **52**(8), 2824–2828. ISSN 0095-1137. Dostupné z: doi:10.1128/JCM.00637-14

**Document Type:** Article; **IF = 3,993;** Quartile by IF: MICROBIOLOGY Q1; Quartile by AIS: MICROBIOLOGY Q2

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

[22] BEZDICEK, M, M LENGEROVA, D RICNA, B WEINBERGEROVA, I KOCMANOVA, P VOLFOVA, L DRGONA, M POCZOVA, J MAYER a Z RACIL. Rapid detection of fungal pathogens in bronchoalveolar lavage samples using panfungal PCR combined with high resolution melting analysis. *MEDICAL MYCOLOGY* [online]. 2016, **54**(7), 714–724. ISSN 1369-3786. Dostupné z: doi:10.1093/mmy/myw032

**Document Type:** Article; **IF = 2,377;** Quartile by IF: INFECTIOUS DISEASES Q3 + MYCOLOGY Q2 + VETERINARY SCIENCES Q1; Quartile by AIS: INFECTIOUS DISEASES Q3 + MICROBIOLOGY Q2 + VETERINARY SCIENCES Q1

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

[23] RICNA, D, M LENGEROVA, M BEZDICEK, I KOCMANOVA, L DRGONA, B WEINBERGEROVA, J MAYER a Z RACIL. Detection and identification of fungi in bronchoalveolar lavage fluid from immunocompromised patients using panfungal PCR. *FOLIA MICROBIOLOGICA* [online]. 2019, **64**(3), 421–428. ISSN 0015-5632. Dostupné z: doi:10.1007/s12223-018-00669-w

**Document Type:** Article; **IF = 1,730;** Quartile by IF: BIOTECHNOLOGY & APPLIED MICROBIOLOGY Q4 + MICROBIOLOGY Q4; Quartile by AIS: BIOTECHNOLOGY & APPLIED MICROBIOLOGY Q4 + MICROBIOLOGY Q4

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

[24] **WEINBERGEROVA, B**, J MAYER, S HRABOVSKY, Z NOVAKOVA, Z POSPISIL, L MARTYKANOVA, K HORTOVA, L MANDELOVA, K HEJDUK, R CHLOUPKOVA, M POSPISIL, M DOUBKOVA, V MAREK, R NOVOTNA, M DOLECEK, HM KUBESOVA, K BRAT, R PARIZKOVA, P HUSA, M MECHL, Z KRAL a M LENGEROVA. COVID-19's natural course among ambulatory monitored outpatients. *SCIENTIFIC REPORTS* [online]. 2021, **11**(1). ISSN 2045-2322. Dostupné z: doi:10.1038/s41598-021-89545-1

**Document Type: Article; IF = 4,38; Quartile by IF: MULTIDISCIPLINARY SCIENCES Q1; Quartile by AIS: MULTIDISCIPLINARY SCIENCES Q2 (data from 2020)**

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>50</b>	<b>50</b>	<b>80</b>	<b>80</b>

[25] **WEINBERGEROVA, B**, J MAYER, T KABUT, S HRABOVSKY, J PROCHAZKOVA, Z KRAL, V HEROUT, R PACASOVA, L ZDRAZILOVA-DUBSKA, P HUSA, P BEDNAR, D RUZEK a M LENGEROVA. Successful early treatment combining remdesivir with high-titer convalescent plasma among COVID-19-infected hematological patients. *HEMATOLOGICAL ONCOLOGY* [online]. 2021, **39**(5), 715–720. ISSN 0278-0232. Dostupné z: doi:10.1002/hon.2908

**Document Type: Letter; IF = 5,271; Quartile by IF: HEMATOLOGY Q2 + ONCOLOGY Q2; Quartile by AIS: HEMATOLOGY Q2 + ONCOLOGY Q2 (data from 2020)**

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>

[26] **WEINBERGEROVA, B**, Ivo DEMEL, Benjamin VISEK, Jan VALKA, Martin CERNAN, Pavel JINDRA, Jan NOVAK, Lukas STEJSKAL, Flora KOVACSOVA, Tomas KABUT, Tomas SZOTKOWSKI, Roman HAJEK, Pavel ZAK, Petr CETKOVSKY, Zdenek KRAL a Jiri MAYER. Successful early use of anti-SARS-CoV-2 monoclonal neutralizing antibodies in SARS-CoV-2 infected hematological patients - A Czech multicenter experience. *HEMATOLOGICAL ONCOLOGY* [online]. 2022, **40**(2), 280-286. doi: 10.1002/hon.2974. ISSN 1099-1069.

**Document Type: Letter - Early Access**

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>80</b>	<b>80</b>	<b>80</b>	<b>80</b>

[27] PAGANO, L, J SALMANTON-GARCIA, F MARCHESI, A BUSCA, P CORRADINI, M HOENIGL, N KLIMKO, P KOEHLER, A PAGLIUCA, F PASSAMONTI, L VERGA, B VISEK, O ILHAN, G NADALI, B WEINBERGEROVA, R CORDOBA-MASCUNANO, M MARCHETTI, GP COLLINS, F FARINA, C CATTANEO, A CABIRTA, M GOMES-SILVA, F ITRI, J VAN DOESUM, MP LEDOUX, M CERNAN, O JAKSIC, RF DUARTE, G MAGLIANO, AS OMRANI, NS FRACCHIOILLA, A KULASEKARARAJ, T VALKOVIC, CB POULSEN, M MACHADO, A GLENTHOJ, I STOMA, Z RACIL, K PIUKOVICS, M NAVRATIL, Z EMARAH, U SILI, J MAERTENS, O BLENNOW, R BERGANTIM, C GARCIA-VIDAL, L PREZIOSO, A GUIDETTI, MI DEL PRINCIPE, M POPOVA, N DE JONGE, I ORMAZABAL-VELEZ, N FERNANDEZ, I FALCES-ROMERO, A CUCCARO, S MEERS, C BUQUICCHIO, D ANTIC, M AL-KHABORI, R GARCIA-SANZ, MM BIERNAT, MC TISI, E SAL, L RAHIMLI, N COLOVIC, M SCHONLEIN, M CALBACHO, C TASCINI, C MIRANDA-CASTILLO, N KHANNA, GA MENDEZ, V PETZER, J NOVAK, C BESSON, R DULERY, S LAMURE, M NUCCI, G ZAMBROTTA, P ZAK, GC SEVAL, V BONUOMO, J MAYER, A LOPEZ-GARCIA, MV SACCHI, S BOOTH, F CICERI, M OBERTI, M SALVINI, M IZUZQUIZA, R NUNES-RODRIGUES, E AMMATUNA, A OBR, R HERBRECHT, L NUNEZ-MARTIN-BUITRAGO, V MANCINI, H SHWAYLIA, M SCIUME, J ESSAME, M NYGAARD, J BATINIC, Y GONZAGA, I REGALADO-ARTAMENDI, LK KARLSSON, M SHAPETSKA, M HANAKOVA, S EL-ASHWAH, Z BORBENYI, GM COLAK, A NORDLANDER, G DRAGONETTI, AME MARAGLINO, A RINALDI, C DE RAMON-SANCHEZ, OA CORNELY, a EPICOVIDEHA WORKING GRP. COVID-19 infection in adult patients with hematological malignancies: a European Hematology Association Survey (EPICOVIDEHA). *JOURNAL OF HEMATOLOGY & ONCOLOGY* [online]. 2021, **14**(1). ISSN 1756-8722. Dostupné z: doi:10.1186/s13045-021-01177-0

**Document Type: Article; IF = 17,388; Quartile by IF: HEMATOLOGY Q1 + ONCOLOGY Q1; Quartile by AIS: HEMATOLOGY Q1 + ONCOLOGY Q1 (data from 2020)**

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

<b>Experimental Work (%)</b>	<b>Supervision (%)</b>	<b>Manuscript (%)</b>	<b>Research Direction (%)</b>
<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>

[28] BUSCA, A, J SALMANTON-GARCÍA, P CORRADINI, F MARCHESI, A CABIRTA, R DI BLASI, R DULERY, S LAMURE, F FARINA, B WEINBERGEROVÁ, J BATINIC,

A NORDLANDER, A LOPEZ-GARCIA, L DRGONA, I ESPIGADO, I FALCES-ROMERO, R GARCIA-SANZ, C GARCIA-VIDAL, A GUIDETTI, N KHANNA, A KULESEKARARAJ, J MAERTENS, M HOENIGL, N KLIMKO, P KOEHLER, A PAGLIUCA, F PASSAMONTI, O CORNELY, L PAGANO. COVID-19 and CAR-T cells: current challenges and future directions-a report from the EPICOVIDEHA survey by EHA-IDWP. *BLOOD ADVANCES*. 2021. ISSN 2473-9537. Dostupné z doi: 10.1182/bloodadvances.2021005616.

**Document Type:** Article; **IF = 6,799;** **Quartile by IF:** HEMATOLOGY Q1 (data from 2020)

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
5	5	5	5

[29] PAGANO, L, J SALMANTON-GARCÍA, F MARCHESI, A LOPEZ-GARCIA, S LAMURE, F ITRI, M GOMES DA SILVA, G DRAGONETTI, I FALCES-ROMERO, J VAN DOESUM, U SILI, J LABRADOR, M CALBACHO, Y BILGIN, B WEINBERGEROVÁ, LM SERRANO GOMEZ, JM RIBERA, S MALAK, J LOUREIRO-AMIGO, A GLENHOJ, R CORDOBA, R NUNES RODRIGUES, TJ GONZALES-LOPEZ, LK KARLSSON, JM JIMENEZ, JÁ HERNÁNDEZ-RIVAS, O JAKSIC, Z RACIL, A BUSCA, P CORRADINI, M HOENIGL, N KLIMKO, P KOEHLER, A PAUGLICA, F PASSAMONTI, O CORNELY. COVID-19 in vaccinated adult patients with hematological malignancies. Preliminary results from EPICOVIDEHA. *BLOOD* 2022, 139(10), 1588-1592. doi: 10.1182/blood.2021014124. ISSN 1528-0020.

**Document Type:** Article; **IF = 23,629;** **Quartile by IF:** HEMATOLOGY Q1 (data from 2020)

(Listed "in extenso" in a separate book: *Appendices "In Extenso" to Habilitation Thesis*)

Experimental Work (%)	Supervision (%)	Manuscript (%)	Research Direction (%)
5	5	5	5