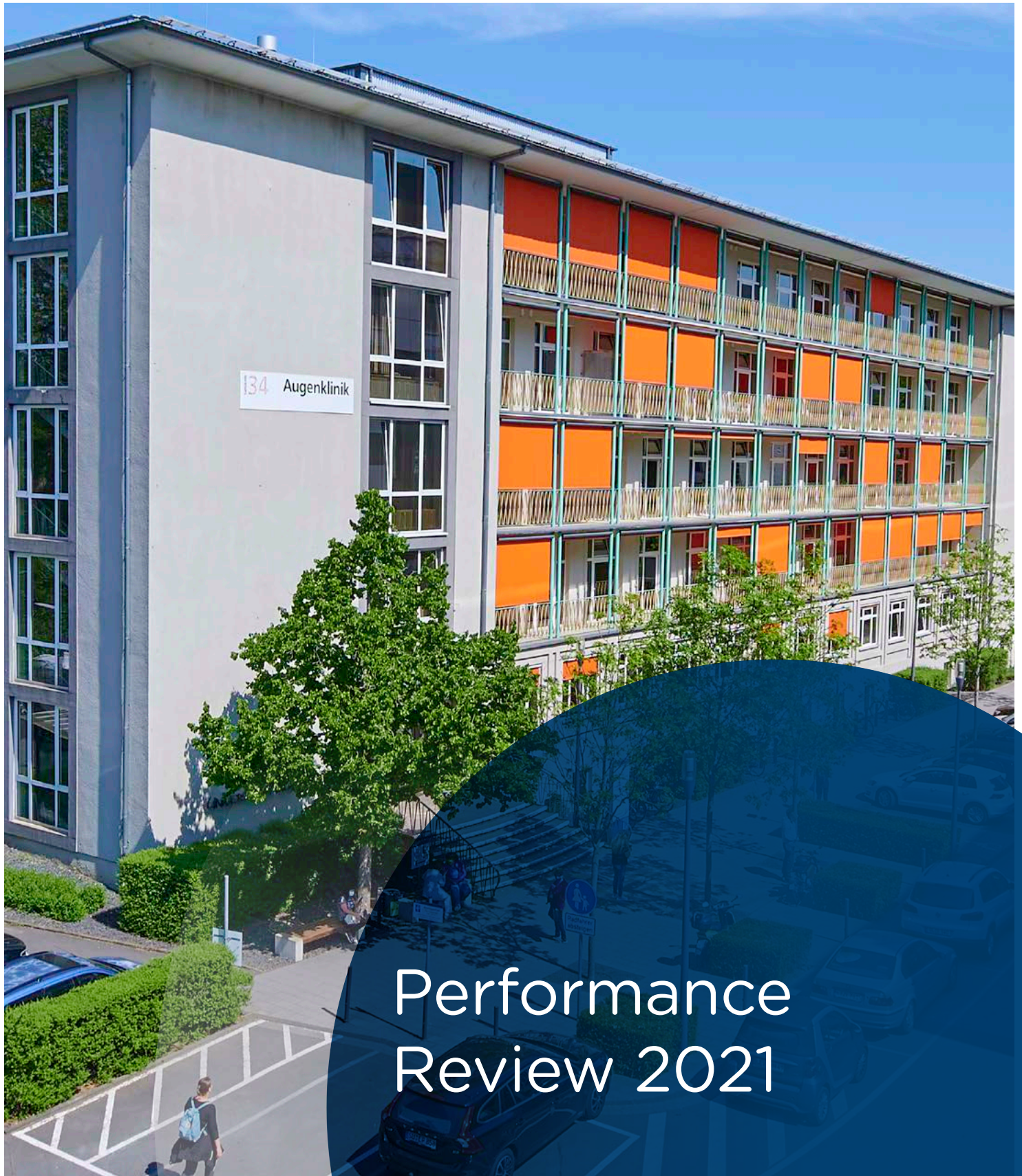


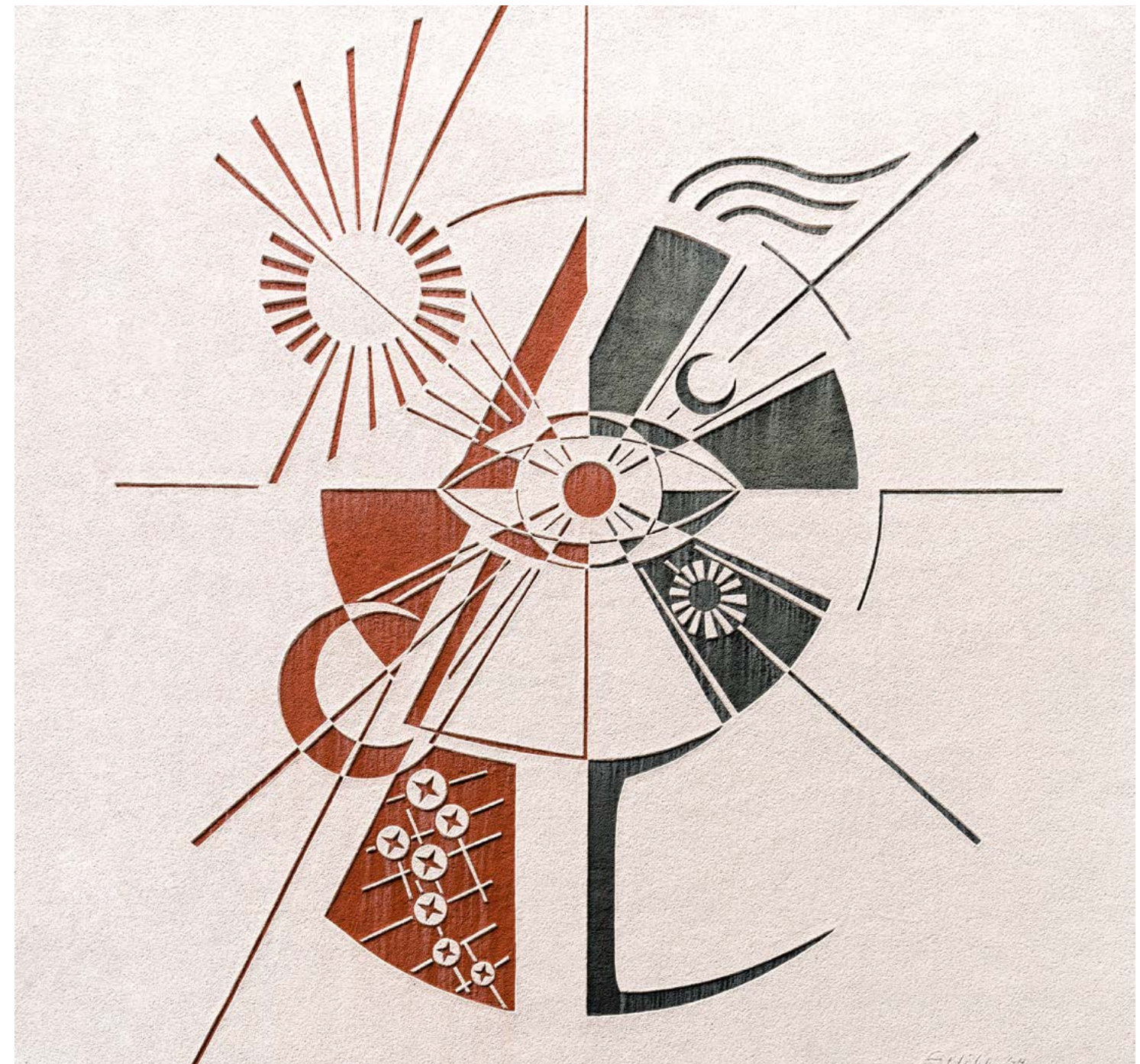


**UNIKLINIK
KÖLN**

Department of Ophthalmology



Performance
Review 2021



*Dear colleagues,
Dear patients,*

*We are pleased to present you with our
annual performance review for 2021. Our
patients experience treatment at a consis-
tently high level despite the current condi-
tions due to the pandemic.*

*We are looking forward to better times
and hope you stay safe and healthy!*



Ophthalmology at the University Hospital of Cologne

The Department of Ophthalmology at the University Hospital of Cologne is one of the largest ophthalmological clinics in Europe. While maintaining excellent standards, an annual average of about 7,000 inpatients and 50,000 outpatients are treated here by a team of 40 doctors and 20 scientists in all areas of ophthalmology. Thanks to extensive subspecialization, we are able to offer the most modern diagnostic methods and therapies for our patients from Cologne, the Rhineland, Germany, Europe, and the rest of the world, while maintaining a humane and scientifically oriented way of practicing medicine 365 days of the year.

We are the only ophthalmological University Hospital in Germany which is supported by a Research Unit of the German Research Foundation (DFG) in order to discover new therapeutic approaches to thus far untreatable diseases.

We proudly look back at the more than 100-year-old history of the Department of Ophthalmology at the University Hospital of Cologne. It allows us to now successfully treat our patients through university medicine and pave the way for the future through teaching and research.

On behalf of all staff members

Univ.-Prof. Dr. Claus Cursiefen
Chairman and Professor

Inhaltsverzeichnis

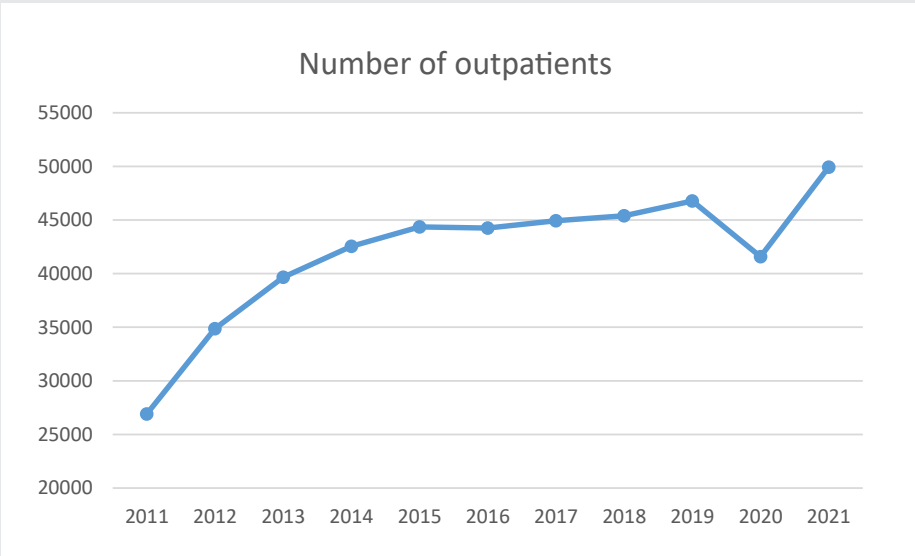
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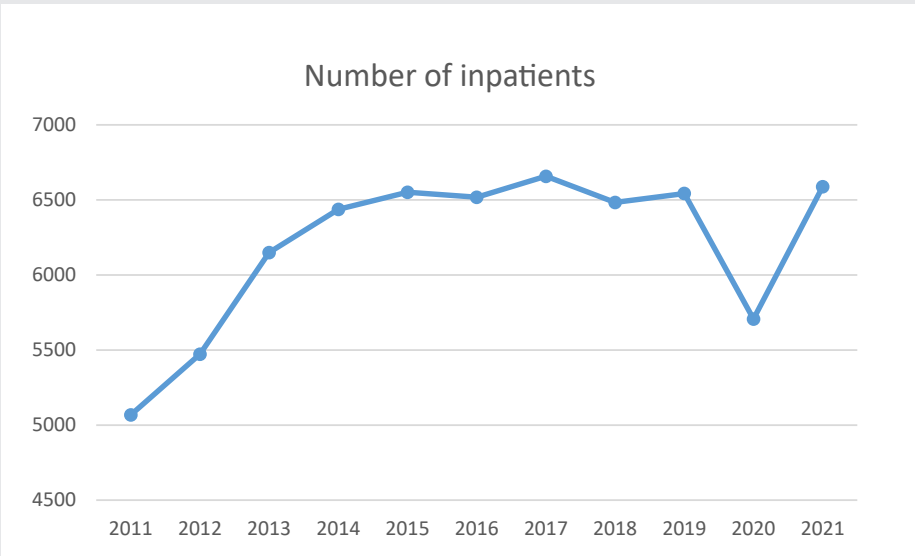
Out- and Inpatient Case Numbers

For the past 100 years, the Department of Ophthalmology at the University Hospital of Cologne has been broadening its medical spectrum and establishing the latest treatment methods.

Outpatients as well as inpatients receive conservative and surgical treatments for any kind of ophthalmological disease, pursuant to the highest standards of medicine.



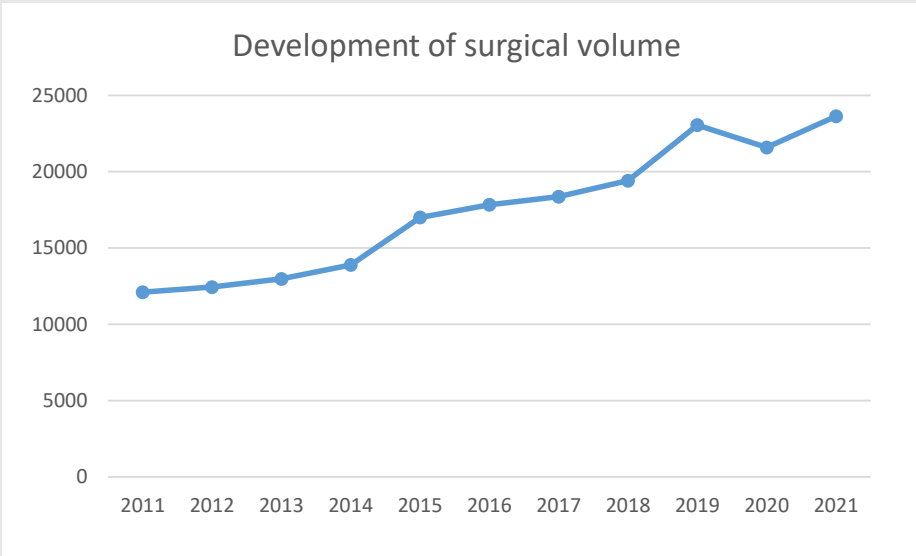
The number of actual patients seen is much higher.



Surgery at the Department of Ophthalmology

The Department of Ophthalmology at the University Hospital of Cologne offers surgical treatment for corneal disease, glaucoma, cataract, diseases of the eyelid, orbit, and the lacrimal duct, strabismological and neuro-ophthalmic issues, as well as retinal conditions in five different highly modernized operating rooms. In the field of corneal transplantation, the most modern methods of lamellar corneal surgery (DMEK, DSAEK, DALK) and refractive surgery using laser

(Femto-LASIK) are applied. The Department of Ophthalmology has had a femtosecond laser since 2018. In addition to cataract surgery, refractive surgical LASIK and corneal transplantation (Femto-DALK, Femto-pKPL), intracorneal ring segments (INTACS) for the reduction of irregular astigmatism in keratoconus patients are being performed here since 2021 in a particularly cornea-sparing procedure.



Overview of surgeries on outpatients and inpatients in 2021

Corneal transplantations	826
Operations on the eye muscles	1.026
Eyelid, orbita, lacrimal duct and lacrimal gland procedures	2.736
Cornea and conjunctival procedures	723
Iris, ciliary body, anterior chamber and sclera surgeries	3.263
Lens surgeries	2.426
Retina, choroid and vitreous body surgeries, incl. Retinal laser	4.660
Intravitreal medication injection into the vitreous body	7.971
Total	23.631

Corneal transplantation

The transplantations are performed by experienced surgeons and cornea specialists Prof. Dr. Claus Cursiefen, director of the clinic, Prof. Dr. Björn Bachmann, head of cornea and corneal transplantation, PD Dr. Sigrid Roters, head of cornea bank, and PD Dr. Mario Matthaei, senior physicians at the Department of Ophthalmology at the University Hospital of Cologne. Under the direction of Priv.-Doz. Dr. Sigrid Roters, donated corneal tissue is examined and prepared here following strict guidelines. The Department of Ophthalmology has had its own cornea bank (University of Cologne Eye Bank) for more than 20 years.

Despite the pandemic close to 800 corneal transplantations were successfully performed here in the past year and therefore the Cologne University Eye Clinic is still the largest medical center for transplantations in Germany.

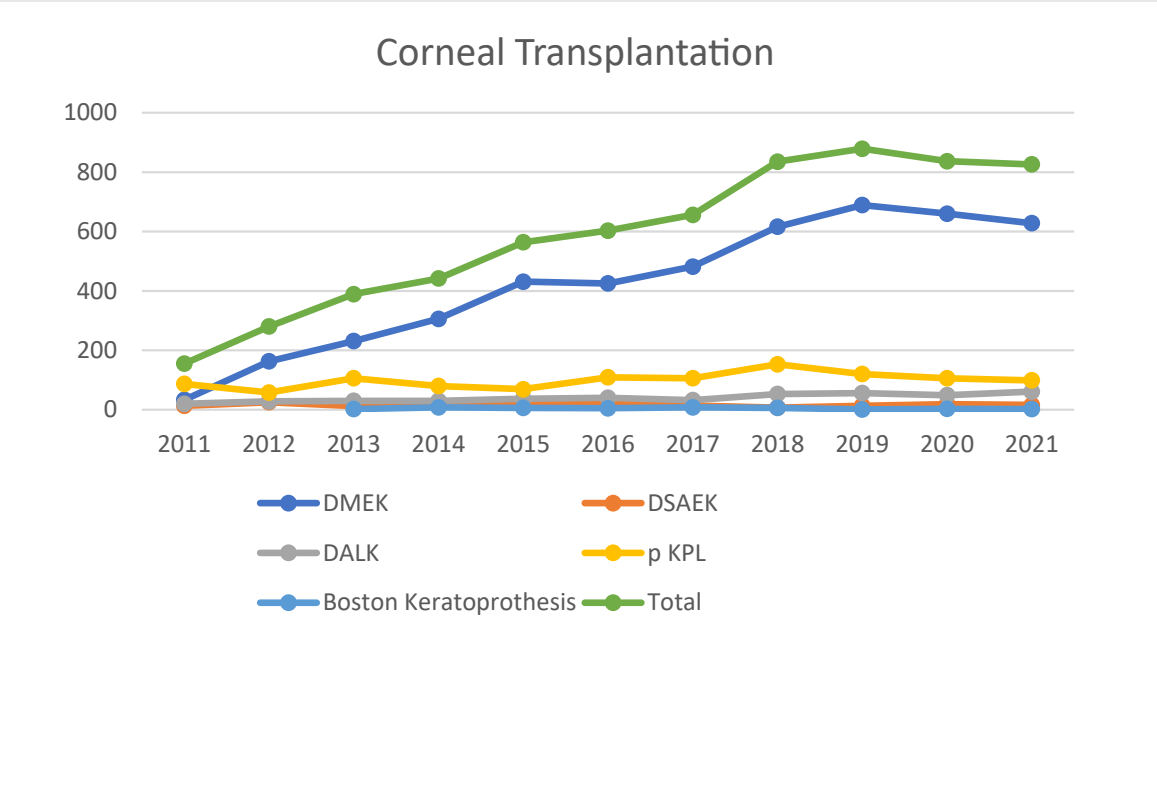
In 2021, the Center for Ophthalmology again performed the most corneal transplants in Germany. More than 10% of all corneal transplantations in Germany are performed here in Cologne.

Glaucoma Surgery

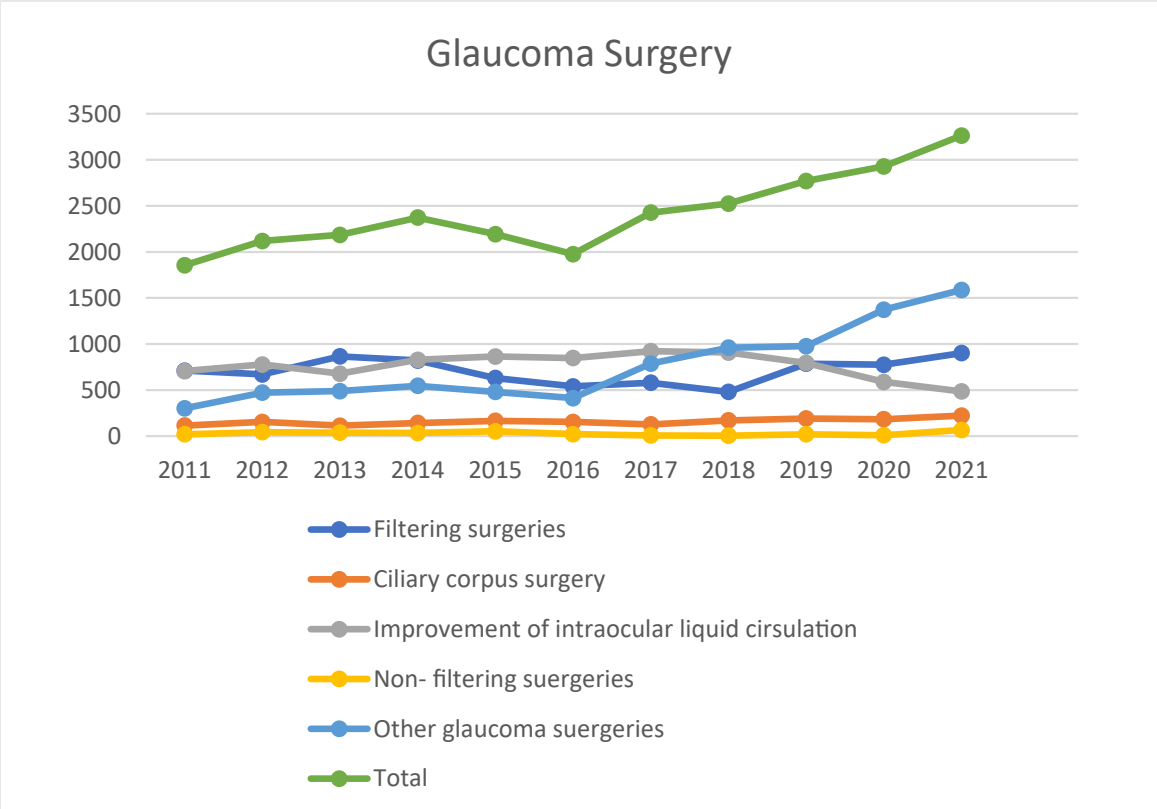
Another major focus is therapy for glaucoma diseases. The Department of Ophthalmology at the University Hospital of Cologne offers a broad diagnostic range with the most modern equipment, which is used at the first encounter, but also at annual check-ups, in order to detect a possible progression of glaucoma. These are consistently applied during the initial visit and annual follow-up visits, for the purpose of detecting a possible progression of the glaucoma at an early stage and treat it accordingly. Furthermore, keeping track of 24-hour measurements of the intraocular pressure provides information that helps choosing and establishing further therapy with certainty. Under the direction of Prof. Dr. Thomas Diet-

lein, senior physician at the Department of Ophthalmology, time-tested surgical procedures as well as the newest micro technical surgeries, like stents and implants, are applied. The internationally recognized glaucoma specialist Uni.-Prof. Dr. Verena Prokosch-Willing has joined the glaucoma department in

2020 whereby new microsurgical operation techniques were established at the Department of Ophthalmology. Thus, the Hydrus Shunt could be established in Cologne as the first location in Germany. The Paul Implant was also newly introduced here as a new modern shunt procedure as one of the first clinics.

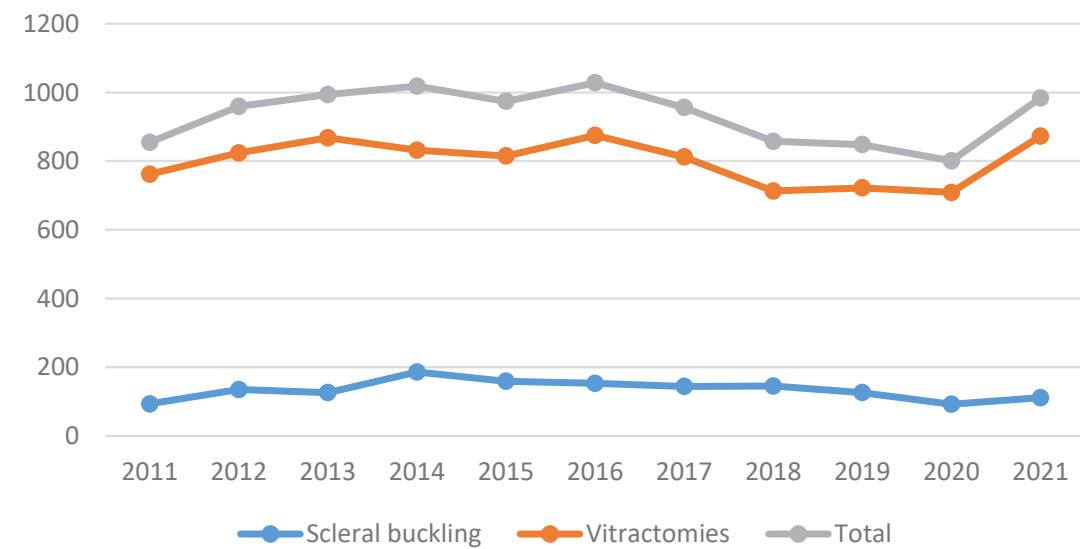


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DMEK	33	163	231	306	431	425	482	616	689	660	628
DSAEK	13	25	12	17	21	24	14	7	13	19	16
DALK	20	28	30	30	37	40	32	53	56	49	61
p KPL	87	58	106	80	69	109	106	153	120	106	99
Boston Keratoprothesis			2	8	6	5	8	6	1	3	2
Total	155	280	389	442	564	603	656	835	879	837	826



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Filtering surgeries	711	671	866	821	631	540	580	480	787	775	901
Ciliary corpus surgery	115	154	114	143	166	154	128	171	192	184	223
Improvement of intraocular liquid circulation	706	777	678	829	864	848	922	908	794	588	485
Non-filtering surgeries	21	44	38	34	52	22	8	5	20	10	67
Other glaucoma surgeries	302	473	489	546	480	412	788	960	977	1372	1587
Total	1855	2119	2185	2373	2193	1976	2426	2524	2770	2929	3263

Vitractomies and scleral buckling

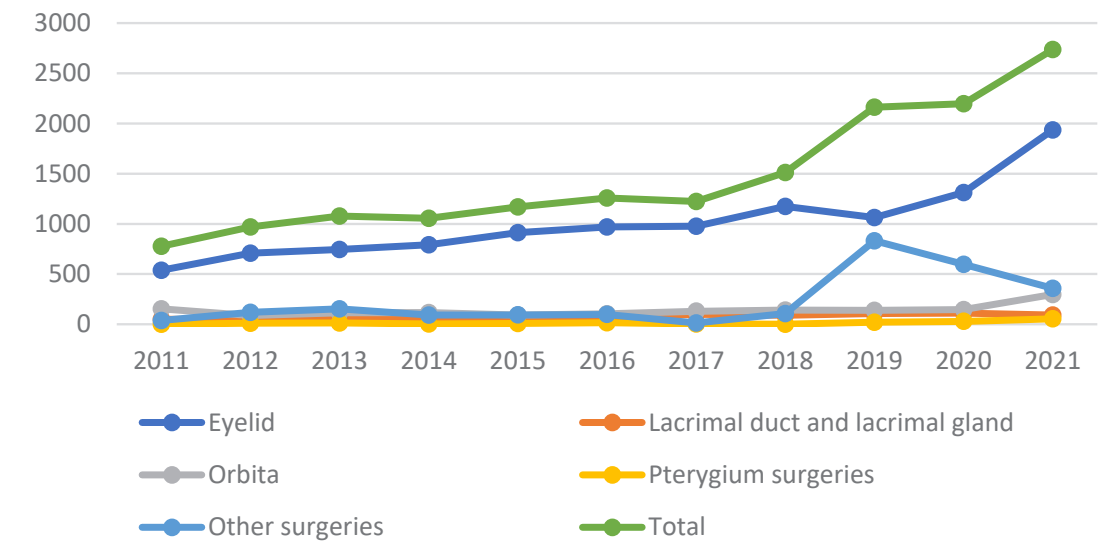


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scleral buckling	93	135	126	186	159	153	144	145	126	92	111
Vitractomies	762	824	868	832	815	875	812	713	722	709	873
Total	855	959	994	1018	974	1028	956	858	848	801	984

Retina and Vitreous Body Surgery

Since June 2020, Univ.-Prof. Dr. Tim Krohne is the new director of the department for diseases of the retina and vitreoretinal surgery. There is a specialized team of physicians with many years of experience in surgical and drug treatment of diseases of the retina, macula and vitreous body. The complete spectrum of outpatient and inpatient procedures for the treatment of retinal diseases is covered here, including minimally invasive, suture-free retinal surgery, laser treatments of the retina and injections of drugs into the vitreous cavity. The most modern high-resolution imaging techniques are used for diagnostics.

Eyelid, orbita, lacrimal duct and lacrimal gland surgeries



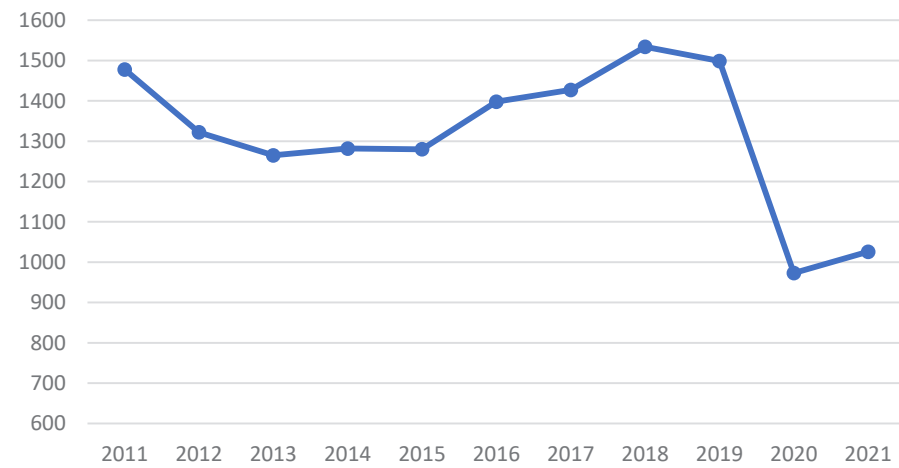
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Eyelid	538	707	744	792	912	970	976	1174	1064	1312	1936
Lacrimal duct and lacrimal gland	49	45	52	51	64	68	100	89	106	111	91
Orbita	153	87	115	116	92	105	130	141	139	147	297
Pterygium surgeries	0	11	13	4	7	16	4	1	21	29	54
Other surgeries	37	119	154	92	93	98	13	106	832	597	358
Total	777	969	1078	1055	1168	1257	1223	1511	2162	2196	2736

Ophthalmic Oncology and Ophthalmic Plastic Surgery

Under the direction of Prof. Dr. Ludwig Heindl, all forms of benign and malignant tumors of the eyelid, orbit, conjunctiva, retina, choroid, and ciliary body are treated here in the ophthalmooncologic and ophthalmoplastic department. Since July 2020, the Department of Ophthalmology offers patients with benign and malignant tumors of the eye integrated care in cooperation with the Center for Integrated Oncology (CIO), where patients can receive interdisciplinary care including radiotherapy using Cyberknife.

Moreover, conditions of the lacrimal drainage system and orbit, as well as eyelid disorders are still treated here.

Ocular muscle surgeries

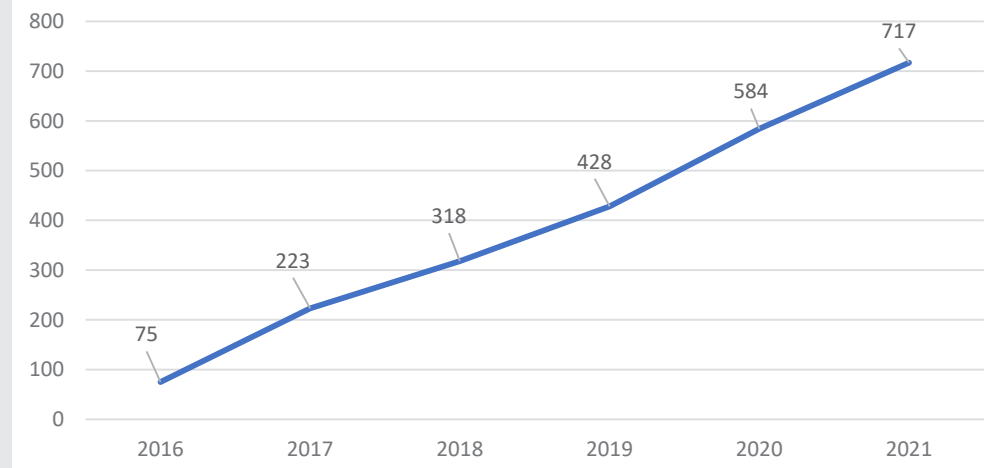


2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1478	1322	1265	1282	1280	1398	1427	1534	1499	973	1026

Strabismology and Neuro-ophthalmology

Strabismological and neuro-ophthalmological diseases are treated under the direction of Prof. Dr. Antje Neugebauer and Dr. Julia Fricke. Highly complex neuro-ophthalmic conditions as well as congenital and acquired forms of strabismus are diagnosed and treated here. With the assistance of the orthoptists and the students of the School of Orthoptics, patients with amblyopia, eye movement disturbances, or nystagmus can be treated here, among other things. Due to the pandemic, the number of elective anesthetic interventions especially in strabismology was reduced in the past two years.

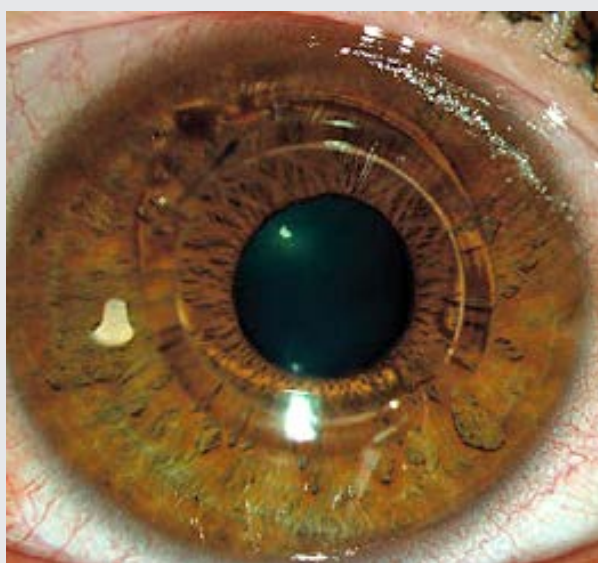
Number of GVhD patients



Competence Center for Ocular GVHD – 20% increase of cases and new standard of care

The Competence Center Ocular GvHD, under the direction of Prof. Dr. Philip Steven, has again improved the care of patients after allogeneic hematopoietic stem cell transplantation, despite difficulties due to the pandemic. Case numbers increased by a further 20% over the course of the year, more than doubling since 2018. Furthermore, an improved standard of care during bone marrow transplantation was established based on its own patient-oriented research projects. Newly admitted patients are offered special glasses prior to transplantation. These glasses are ex-

pected to significantly reduce the subsequent rate of rejection. The current reconstruction of the competence center creates the prerequisites for a further positive development for our hemato-oncological patients and the establishment of the Cologne University Hospital as a national and international pioneer in the interdisciplinary treatment of ocular graft-versus-host disease.



Intracorneal ring segments using the femtosecond laser in keratoconus patients

The Center for Ophthalmology offers all diagnostic and therapeutic options for the treatment of keratoconus patients.

The range of therapies has recently been extended by the possibility of implanting intracorneal ring segments to reduce irregular astigmatism with the help of our femtosecond laser. Our latest generation femtosecond laser offers the possibility to create the stromal tunnels required for ring implantation very precisely and safely. This not only significantly reduces the risk of perforation compared to purely manual preparation, but also increases the predictability of the result. Intracorneal ring segments are suitable for patients with keratoconus and centrally clear cornea with sufficiently thick periphery, who can no longer wear contact lenses and wish to avoid corneal transplantation.

Our center offers all options to provide comprehensive care to keratoconus patients, from contact lens fitting to crosslinking, intracorneal ring implantation and DALK.

The keratoconus office hours are under the medical direction of Priv.-Doz. Dr. Simona Schlereth and Prof. Dr. Björn Bachmann.

Paul Implant

In addition to the Eye Clinic of the University Hospital Bonn (UKB), the Department of Ophthalmology in Cologne was the first in Germany to use the PAUL Glaucoma Implant for the therapy of glaucoma. The PAUL Glaucoma Implant (PGI) is a new glaucoma drainage device for the therapy of glaucoma. It regulates the intraocular pressure (IOP) in the patient's eye via a very fine silicone tube that allows more aqueous humor to flow out of the eye. The tube has a lumen like modern stents and is therefore much smaller than Baerveldt or Ahmed and drains from day one. Meanwhile, more than 50 implantations of this type have been performed in Cologne. The first multicenter prospective randomized clinical trial CAPS Paul versus Ahmed has been started together with the Bonn Hospital and Singapore.

Hydrus Microstent

The Department of Ophthalmology at the University Hospital of Cologne is the first university institution to introduce and certify the Hydrus Microstent as a minimally invasive surgical method for the treatment of glaucoma. More minimally invasive methods with a much shorter healing phase and fewer complications are on the rise.

The new microstent, a so-called trabecular stent, dilates the physiologically existing trabecular meshwork. Meta-analyses have shown that it achieves the best results in reducing pressure. In its guidelines, the American Academy of Ophthalmology rates the stent as a surgical pressure-lowering procedure with a "strong recommendation" - the highest recommendation to date for minimally invasive implants. Since the end of March 2021, the Department of Ophthalmology at the University Hospital of Cologne is now the first certified university medical center for the implantation of the stent.



Picture: f.l.t.r.
Dr. Silvia Schrittenlocher,
Patient mit Virtual Reality- Brille,
Prof. Thomas Dietlein

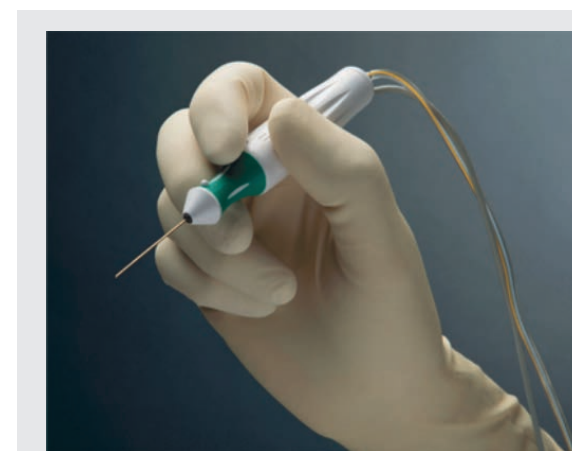
Innovative Perimetry Examination at the Department of Ophthalmology

The traditional perimetry examination for glaucoma consists of static automated hemisphere perimetry, which takes place in an ophthalmologic practice or clinic with a hemisphere perimeter in a darkened room. The examination requires concentration, time and good cooperation of the patient, which can lead to difficulties depending on general condition and comorbidities. Especially during the pandemic, hemisphere perimetry is frequently being questioned.

Now more than ever, as we are confronted with digitalization, the question arises whether a modern perimetry examination with the help of virtual reality glasses could be practicable and suitable for everyday use. The glaucoma section, headed by Prof. Dr. Thomas Dietlein, will soon be working with Dr. Silvia Schrittenlocher on the development of a new perimetry system to answer these questions. In this context, a prospective study will be conducted to investigate the practicability and comparability of virtual reality visual field examination with conventional perimetry examination. First evaluations are expected in the middle of 2023.

Innovative Netzhautchirurgie mittels Ultraschall-Vitrektomie

As one of the first hospitals in Europe, the Department of Ophthalmology 2021 introduced a newly developed surgical method in addition to the established technique of retinal surgery using suction-cutting instruments (vitrectomy), in which the vitreous body is liquefied and suctioned off using ultrasound technology. Since then, numerous patients with various retinal diseases have been successfully treated via ultrasound vitrectomy. The advantages of ultrasonic vitrectomy include the uniform, uninterrupted suction, the variable design possibilities due to the absence of moving parts, and the applicability even with lens material. Like classic vitrectomy, ultrasonic vitrectomy is usually



Picture: Bausch + Lomb, www.bausch.com

performed without sutures using a small incision technique to ensure rapid patient rehabilitation.



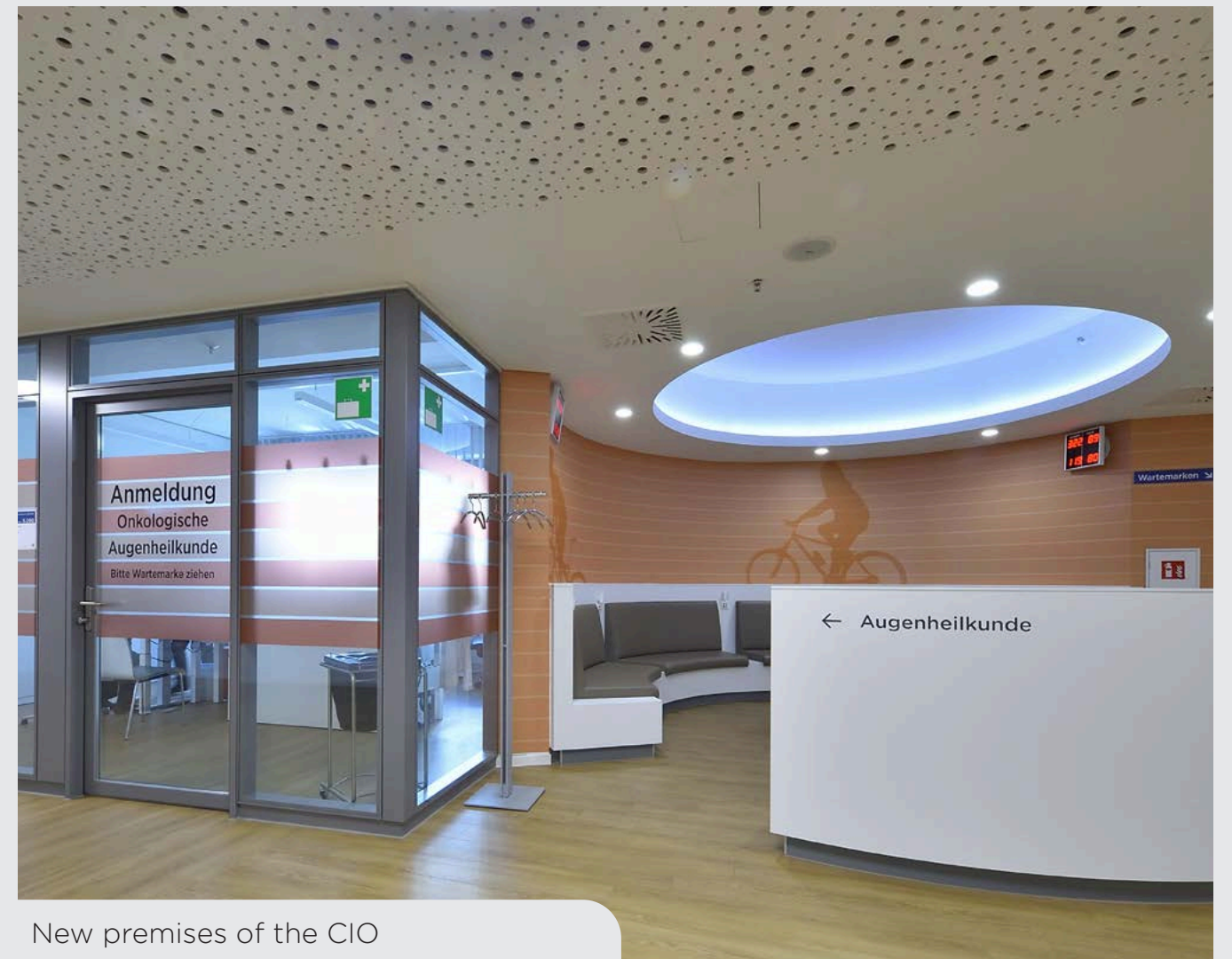
Center for Integrated Oncology

The ophthalmooncology department under the direction of Prof. Dr. Dr. Ludwig M. Heindl at the Center for Integrated Oncology (CIO) Cologne offers high-quality, individualized care for patients within the framework of an innovative, university-based consultation using the latest therapeutic approaches. For example, the latest targeted therapy for patients with metastatic uveal melanoma has now been successfully established in collaboration with the Skin Tumor Center at the CIO. Choroidal melanoma is the most common intraocular tumor in adults. It accounts for approximately 3-5% of all melanomas. Although it originates from melanocytes, choroidal melanoma differs markedly from cutaneous melanomas in its characteristics. In the course of the disease, almost half of the patients with choroidal melanoma - despite successful local therapy - develop metastases, mainly in the liver. In case of metastasis, survival prospects are rather unfavorable. The median survival

in these patients is about one year, as the clinical response to systemic treatment, including immune checkpoint inhibitors, is also rather low.

The new therapy with the bispecific fusion protein tebentafusp, which is offered at the CIO, specifically targets cells of the choroidal melanoma that produce glycoprotein 100 and thus significantly improves overall survival as well as progression-free survival compared to patients treated with immunotherapy or chemotherapy.

The ophthalmooncology department in the CIO of the University Hospital Cologne is a national and international reference center in the treatment of eye tumor diseases of all kinds and offers its patients not only the latest treatment options, but also integrated care including psycho-oncological care.



New premises of the CIO



Overview Eye Clinic Cologne in numbers	
Inpatient beds	70
Wards	4
Number of inpatients	6.588
Utilization	86,3%
Average length of stay (days)	3
Number of surgeries	23.631
Number of operating rooms	5
Number of outpatients	49.932
Outpatient departments and consultations	20
Ophthalmologists	48
- Of which senior physicians	18
- Of which chief senior physician	3

Focus Physicians List: Eight mentions of five ophthalmologists - Top ranking in Germany

The Department of Ophthalmology at the University Hospital of Cologne is once again the German university eye hospital with the most mentions in the Focus list of physicians in 2021. This time, for the first time, a total of eight mentions were made in four areas. In total, five specialists of the center were nominated as top physicians.

These are Prof. Dr. Thomas Dietlein and Prof. Dr. Claus Cursiefen in the field of "Glaucoma", Prof. Dr. Claus Cursiefen and Prof. Dr. Björn Bachmann in the field of "Cornea/Transplantation" and in the field of "Refractive Surgery and Cataract" and Dr. Julia Fricke and Prof. Dr. Antje Neugebauer in the field of "Strabismology".

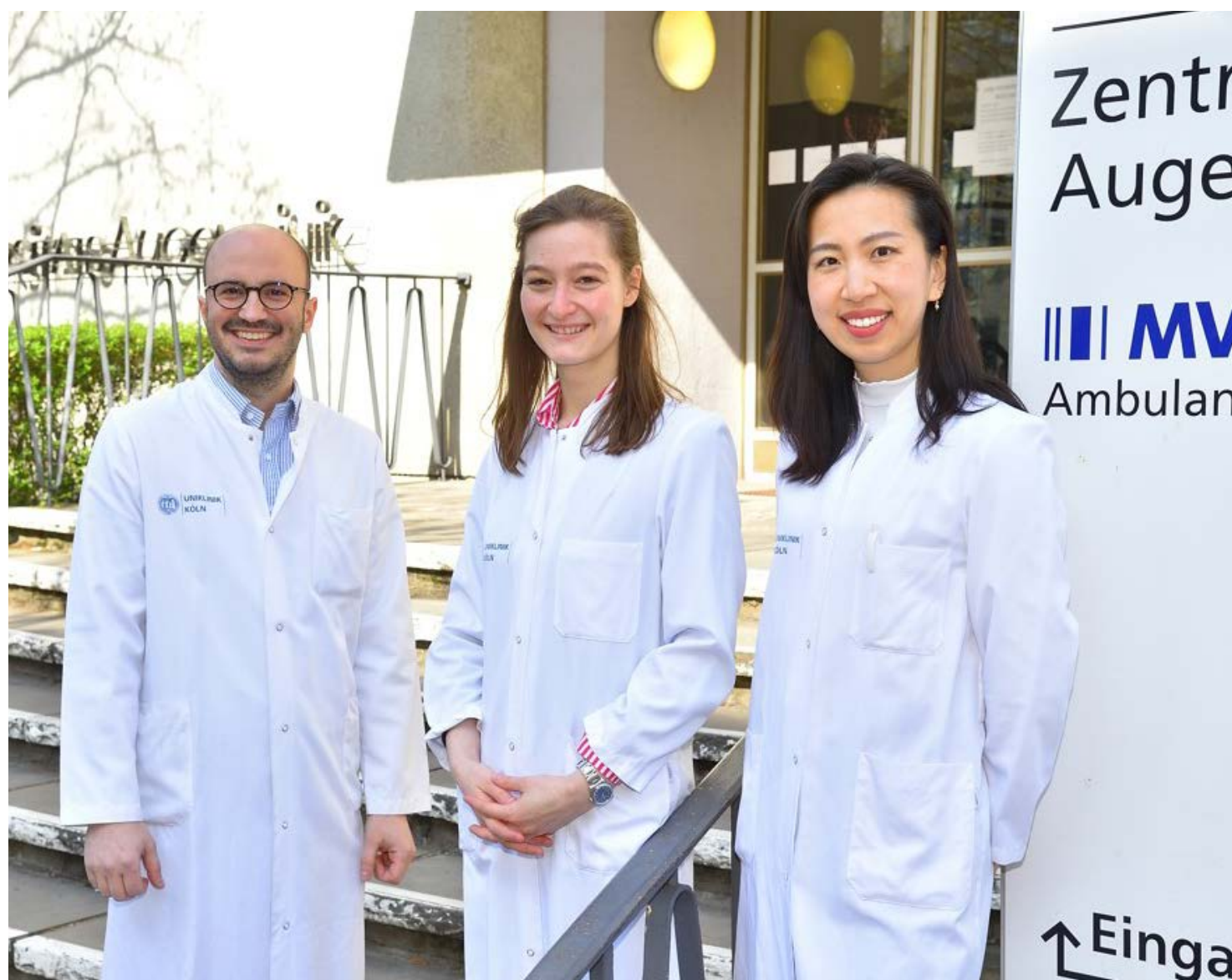


The Clinician Scientist Program of the University Hospital Cologne

The Cologne Clinician Scientist Program (CCSP) is a comprehensive, attractive, and sustainable career development program for highly motivated young clinician-scientists who have demonstrated a special aptitude for scientific work. The CCSP is designed to promote a bidirectional, translational approach: from the lab to the bedside and back. Mentoring during the CCSP provides participants with expertise in career planning, soft skills, and scientific and collegial mentoring.

The Cologne Clinician Scientist Program offers the perfect opportunity for young clinician-scientists to optimally balance their resources for clinical work and research at the same time. Within the CCSP, three Clinician Scientists will work under the guidance and mentoring of Univ.-Prof. Dr. Prokosch and Univ.-Prof. Dr. Cursiefen.

The CCSP program offers the special opportunity to perform scientific work during residency through a protected 50% research period.



Picture: f.i.t.r.
Dr. Alexander C. Rokohl, Dr. Antonia Howaldt, Dr. Hanhan Liu

Three Clinician Scientists are currently funded at the Eye Clinic of the University Hospital of Cologne:

Dr. Hanhan Liu

Dr. Hanhan Liu completed her medical studies at Tongji University in Shanghai in June 2013. She then worked as an ophthalmology resident in the eye department of Shanghai East Hospital for two years and completed her master's thesis.

Immediately after completing her master's thesis in 2015, Dr. Hanhan Liu applied to join the Neuroprotection group of Univ. Prof. Dr. Verena Prokosch at the University Eye Hospital in Mainz, Germany, as a doctoral student. Dr. Hanhan Liu successfully completed her PhD on "Neuroprotection of hydrogen sulfide in glaucoma" with 'magna cum laude'.

In her high-ranking publication "Investigative Ophthalmology & Visual Science", she was able to show for the first time that H₂S provides dose-dependent protection in various animal models of glaucoma, both in vitro and in vivo, and that the underlying mechanisms of the protective effect of H₂S are related to the regulation of iron metabolism, mitochondrial dynamics, and vascular function. For this work, Dr. Hanhan Liu received the 2018 Glaucoma Research Award from the German Ophthalmological Society (DOG). She continued to work on the topic and published five peer-reviewed papers as the first author on H₂S and neuroprotection in glaucoma. For the paper "Mitochondrial Changes and Aging in Glaucoma," she was awarded Paper of the Month by the World Glaucoma Association in April 2020.

In October of last year, Dr. Hanhan Liu followed Prof. Prokosch's professorship to the Eye Clinic of the University Hospital of Cologne and started her follow-up project "Hydrogen Sulfide: an experimental study of its properties on neuroprotective treatment strategies in glaucoma" as a postdoc in Univ. Prof. Dr. Prokosch's research group "Neuroprotection in Glaucoma".

In this project they aim to elucidate the pathophysiology of glaucoma and to better understand the protective mechanism of H₂S in retinal neurodegeneration. Studying the protective mechanism of H₂S will open the possibility of new neuroprotective treatment strategies for glaucoma.

In January 2021, Dr. Hanhan Liu received the Science Award of the Association of Rhenish-Westphalian

Ophthalmologists for this project. After significantly strengthening her expertise in basic research, Dr. Hanhan Liu will continue her training as an ophthalmology specialist at the University Eye Hospital in Cologne. It will undoubtedly be a challenge to work in the clinic and still maintain the scientific path.

Dr. Alexander C. Rokohl

Dr. Alexander C. Rokohl, was accepted into the Cologne Clinician Scientist Program (CCSP) at the University of Cologne in 2021 due to his outstanding scientific achievements.

The scientific achievements of Dr. Alexander C. Rokohl have already attracted much attention at national and international scientific conferences and he has won several scientific awards, including the prestigious 'ESO- PRS Richard Collin Junior Award' 2018. In his highest ranked published paper "Dry Anophthalmic Socket Syndrome - Standardized clinical evaluation of symptoms and signs (Ocular Surface)", Dr. Alexander C. Rokohl, together with his mentor, Univ.-Prof. Dr. Dr. Ludwig M. Heindl, was the first in the world to describe and define a new clinical presentation, the Dry Anophthalmic Socket Syndrome (DASS), and also to establish diagnostic criteria. DASS occurs in more than 60% of patients after enucleation or evisceration and significantly reduces the quality of life of these patients. The goal of his research at CCSP is to identify additional molecular mechanisms of DASS and to develop an evidence-based treatment algorithm for this condition.

However, the findings from Dr. Alexander C. Rokohl's work are already essential in the clinical course assessment and for the complication management after enucleation or evisceration of an eye. Based on the findings of his previous studies, Dr. Alexander C. Rokohl and Prof. Dr. Dr. Ludwig M. Heindl have successfully established the world's first integrated and interdisciplinary ocular prosthetic consultation office at the Department of Ophthalmology at the Cologne University Hospital.

Dr. Antonia Howaldt

Antonia Howaldt was accepted into the Cologne Clinician Scientist Program (CCSP) of the Faculty of Medicine at the University Hospital of Cologne in 2021.

During her medical studies at Charité University Hospital Berlin, she received a one-year doctoral scholarship from the Berlin Institute of Health (BIH)

in 2016. During her studies, she took two semesters off to work on research projects at the Charité Institute of Human Genetics in the laboratory of her supervisor, Professor Uwe Kornak. These included the analysis of exome or genome sequencing data and their functional analysis in the laboratory in the field of genetic bone metabolism diseases. She published three papers as first author and presented results at national and international congresses. Antonia Howaldt successfully completed her publication PhD on "Genetic Factors Regulating Bone Mass" in 2021 with 'summa cum laude'.

In her final year of medical school, she spent a total of four months in the United States. She completed rotations at Harvard Medical School in Boston, Massachusetts, and Feinberg School of Medicine in Chicago, Illinois. The latter was through the Charité's bilateral exchange program with Northwestern University in Chicago. She also spent time abroad at Hospital Alemán in Buenos Aires, Kings College Hospital in London and Hirslanden Klinikum in Zurich.

Antonia Howaldt started her residency in the Department of Ophthalmology at the University Hospital of Cologne in 2020. She will continue her scientific activities in Cologne in the field of corneal diseases with the support of the CCSP program. Under the direction of Prof. Dr. Björn Bachmann, the genetic basis of Fuchs endothelial dystrophy is being investigated in collaboration with the Cologne Center for Genomics (CCG). New imaging diagnostics for Fuchs endothelial dystrophy are being developed under the direction of PD Dr. Mario Matthaei. Another project on the prevention of acute keratoconus is being conducted under the direction of Prof. Claus Cursiefen and PD Dr. Felix Bock within the framework of the DOG research group FOR2240.

Dr. Antonia Howaldt has been elected speaker and Dr. Jan Niklas Petry-Schmelzer deputy speaker of the Cologne Clinician Scientist Program in 2022. Together they will represent the interests of the CCSP Fellows in the next two years.



Management team of the School of Orthoptics

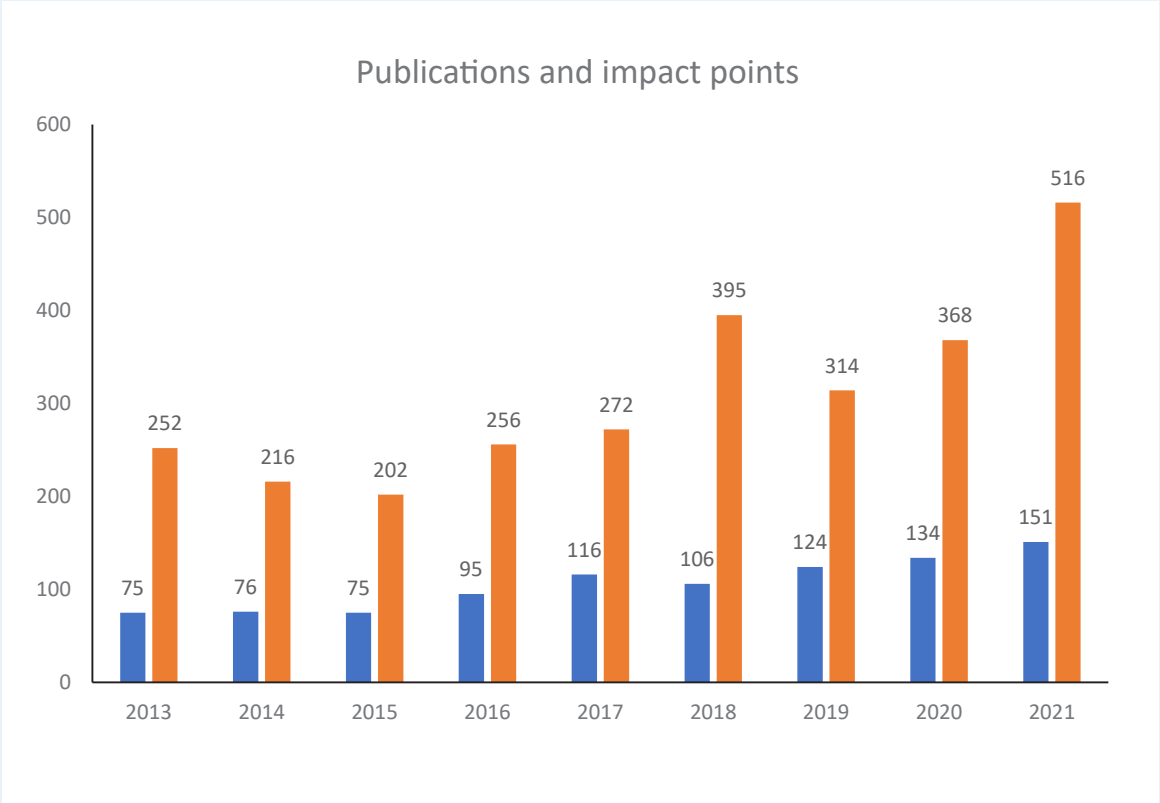


The trainees of the latest course

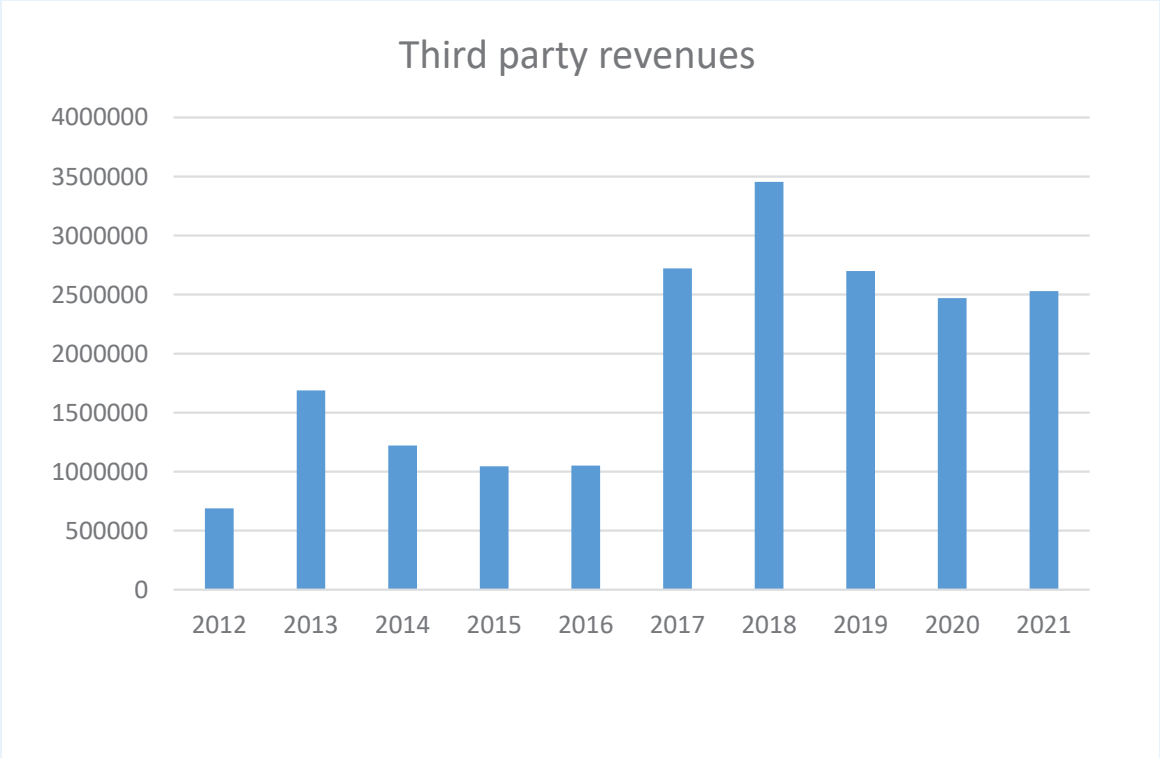
50th anniversary of the School of Orthoptics

In October 2021, the Vocational School of Orthoptics together with the department of strabismology and neuro-ophthalmology celebrated the 50th anniversary of our training institution for orthoptists. Prof. Dr. Neugebauer as Medical Director and Claudia Schmitz as Head Orthoptist are confident, as are the students, that the tradition of high quality orthoptic training at the Department of Ophthalmology at the University Hospital of Cologne will continue in the next decades.

Publications and impact points



Third party revenues



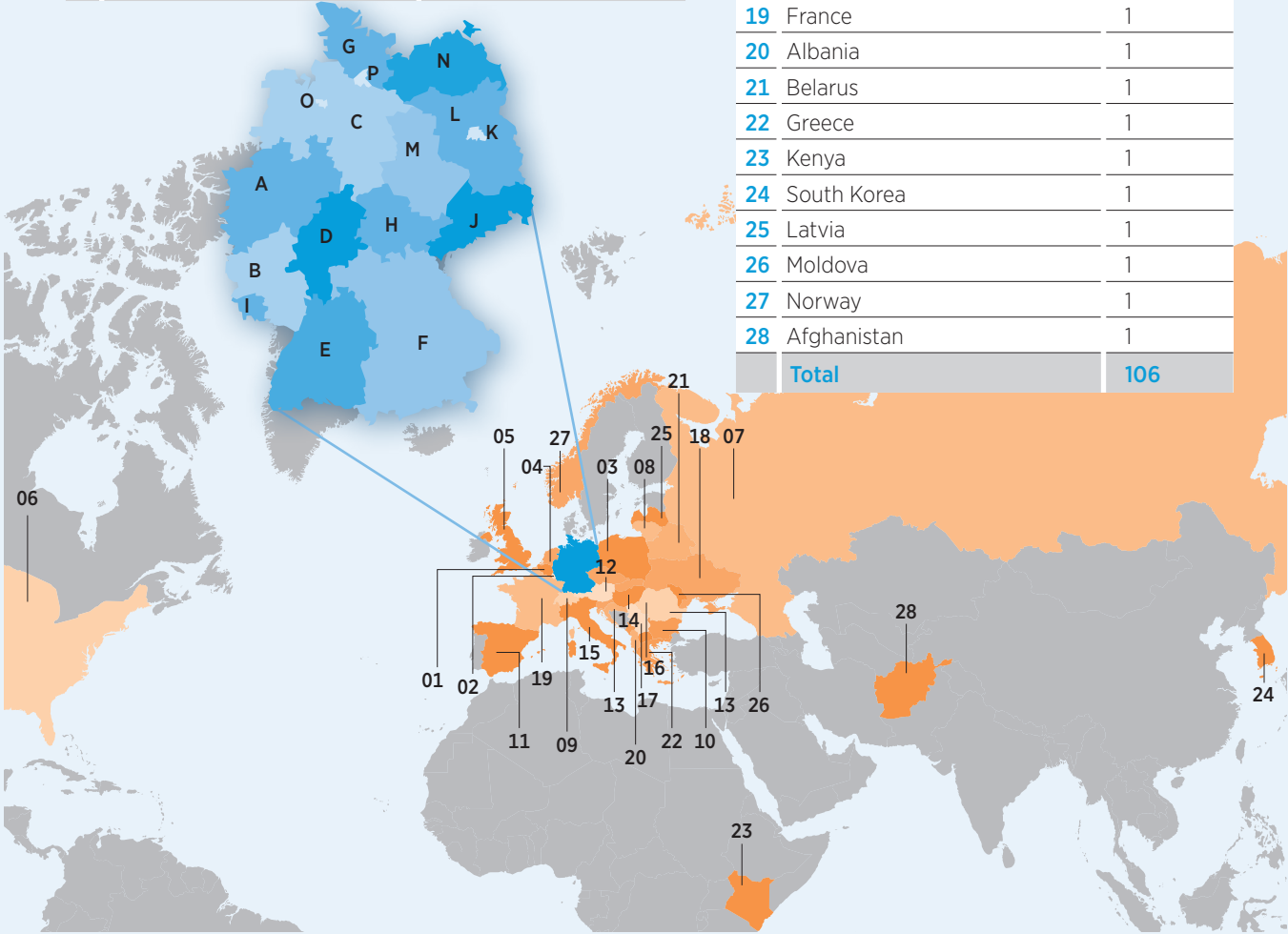
Origin of the patients

Origin of German patients with statutory health insurance (based on referring physicians)

	Federal state	Number of admissions
A	Northrhine-Westphalia	
B	Rhineland Palatinate	1823
C	Lower Saxony	692
D	Hesse	316
E	Baden-Württemberg	101
F	Bavaria	58
G	Schleswig-Holstein	
H	Thuringia	28
I	Saarland	27
J	Saxony	25
K	Berlin	25
L	Brandenburg	15
M	Sachsen-Anhalt	13
N	Mecklenburg Western Pomerania	9
O	Bremen	3
P	Hamburg	3
	International patients	106
Total		23883

International Patients (Country of Origin)

	Country of Origin	Patients
01	Belgium	21
02	Luxembourg	13
03	Poland	13
04	Netherlands	8
05	United Kingdom Great Britain and Northern Ireland	7
06	United States of America	5
07	Russia	5
08	Lithuania	3
09	Switzerland	3
10	Bulgaria	3
11	Spain	3
12	Austria	2
13	Croatia	2
14	Hungary	2
15	Italy	2
16	Romania	2
17	Serbia	2
18	Ukraine	2
19	France	1
20	Albania	1
21	Belarus	1
22	Greece	1
23	Kenya	1
24	South Korea	1
25	Latvia	1
26	Moldova	1
27	Norway	1
28	Afghanistan	1
Total		106



Information for employees

Awards and Prizes in 2021:

- › Dr. Yongwei Guo,
 - › DOG doctoral award for clinical work (Hermann Wacker Fund)
- › Dr. Alexander Rokohl,
 - › Appointment to the editorial board of the Journal of the German Ophthalmological Society "Der Ophthalmologe ",
 - › Science Award - Dry Eye and Blepharitis/ MGD - German Ophthalmological Society (DOG),
 - › Dr. Georg Prize - Association of Rhenish-Westphalian Ophthalmologists e.V.
 - › Research grants in: Nolting Foundation,
 - › Gilen Foundation, Cologne Clinician Scientist Program (CCSP, funded by the DFG)
- › Leonie Menghesha,
 - 2nd international place at the Thea Trophy Award
- › Univ.-Prof. Dr. Dr. Ludwig M. Heindl,
 - Leonhard Klein Prize
- › Dr. Hanhan Liu,
 - Dr. Georg Prize - Association of Rhenish-Westphalian Ophthalmologists e.V.
- › Priv.-Doz. Dr. Simona Schlereth,
 - Dr. Georg Prize - Association of Rhenish-Westphalian Ophthalmologists e.V.

FEBO, FICO, ICO Participants 2021:

- › Dr. Verena Schöneberger,
 - successful participation in the ICO exam in the category "Optics"
- › Dr. Silvia Schrittenlocher,
 - successful participation in the FEBO exam,
 - successful participation in the ICO exam for the "Clinical" category
- › Dr. Isabella Moshiri,
 - successful participation in the FEBO exam

Specialist Qualifications in 2021:

- › Vivienne Dooling
- › Dr. Julia Lemke
- › Dr. Joel Mor
- › Dr. Isabella Moshiri
- › Dr. Silvia Schrittenlocher
- › Dr. Vasilena Sitnilska
- › Volkan Tahmaz

New Employees:

New additions to our team of residents (assistant physicians) in the year 2021 were Ursula Hardt, Dr. Hannah Jonescheit, Dr. Rebecca Köpple, Dr. medic (RO) Michael-Adrian Milcu, Dr. Hannah Schatten, Kira Wefelmeyer, and Michael Simon.

Unfortunately, we had to say goodbye to Dr. Anda-Maria Hild, Dr. Joel Mor, Corinna von Goscinski, Dr. Daniel Boomkamp, Dr. Isabella Moshiri and Dr. Julia Lemke

Habilitations since 2012

Person	Year	Title of Habilitation Thesis
Priv.-Doz. Dr. Andrea Hedergott	2021	Rare oculomotor disorders with forced head posture: interdisciplinary diagnosis and surgical therapy
Priv.-Doz. Dr. Simona Schlereth	2020	The lymph- and hemangiogenic privilege of the sclera
Priv.-Doz. Dr. Sebastian Siebelmann	2019	Non-invasive imaging for optimization ophtho-surgical procedures on the anterior segment
Priv.-Doz. Dr. Philip Enders, FEBO, FICO	2019	Influence of the size of the optic nerve on the diagnostic accuracy of optical coherence tomography of the optic papilla in glaucoma diagnostics
Priv.-Doz. Dr. Dr. nat. med. Deniz, Hos, FEBO	2019	The role of the lymphatic system in inflammatory corneal diseases
Priv.-Doz. Dr. Alexandra Lappa	2018	Surgical therapy of exudative age-related macular degeneration by replacing the submacular pigment epithelium
Priv.-Doz. Dr. Lebriz Altay	2018	Risk factors for the development and progression of age-related macular degeneration
Priv.-Doz. Dr. Friederike Schaub, FEBO	2018	Descemet Membrane Endothelial Keratoplasty
Priv.-Doz. Dr. Mario Matthaei, FEBO	2017	Molecular studies on the pathogenesis of Fuchs endothelial dystrophy
Priv.-Doz. Dr. Franziska Bucher, FEBO	2017	Changes in the sub-basal nerve plexus of the cornea in ocular and systemic diseases
Priv.-Doz. Dr. rer. nat. Marcus Karlstetter	2017	(Subject: Molecular Medicine) Microglial cells as a therapeutic target for degenerative retinal diseases
Priv.-Doz. Dr. rer. nat. Felix Bock	2016	The role of lymphangiogenesis in rejection after corneal transplantation
Priv.-Doz. Dr. Robert Hörster	2016	Experimental and clinical aspects of ocular fibrovascular scarification
Priv.-Doz. Dr. Albert Caramoy	2015	Age-related macular degeneration
Priv.-Doz. Dr. Tina Schick, FEBO	2015	Risk factors and prognostic factors in age-related macular degeneration
Priv.-Doz. Dr. Rafael S. Grajewski	2014	Immunoregulatory mechanisms in murine experimental autoimmune uveitis (EAU)
Prof. Dr. André Rosentreter	2014	Innovative concepts in glaucoma surgery
Priv.-Doz. Dr. Manuel Hermann, FEBO	2013	Diagnostics and new principles in the treatment of glaucoma, age-related macular degeneration and other retinal diseases
Univ.-Prof. Dr. Ludwig M. Heindl	2012	The role of tumor-associated lymphangiogenesis in malignant surface tumors
Prof. Dr. Philipp S. Mütther	2012	Pathologic ocular neovascularization

Teaching and Training

Teaching Medicine:

- › Direction and exam for “*Fachblock Augenheilkunde*”: lecture, seminar, and practical training for 192 students
- › Direction and exam for “*Kompetenzfeld Sehstörungen*” (in cooperation with the institute for physiology)
- › Special examination: “*Praktikum Augenuntersuchungen*” for 192 students per semester
- › Direction of “*Wahlpflichtseminar Augenheilkunde*”
- › Direction of “*Schlüsselqualifikationskurs: From bench to bedside – How to develop a translational research project*”
- › Involvement in “*Kompetenzfeld Schwindel*”
- › Involvement in the course offer “*Research Track*”, lecture series
- › Involvement in dissection course in anatomy - orbita

B.Sc. Neuroscience:

- › Involvement in a lecture series

M.Sc. Neuroscience:

- › Direction of the module “*Retinal Immunology and Gene Regulation*”, lecture, seminar, practical training, 8 students

Apprenticeship:

- › School of Orthoptics, integrated into the eye clinic: Currently, 12 students are being trained to become certified orthoptists in the course of a 3-year-program.

Training:

- › Examination Center of the International Council of Ophthalmology, ICO
- › Involvement in the BVA-specialist revision

Events in 2022

- › IVOM Update 06.04.22
- › Retina/AMD Update (Forum Oculus Special) 17.09.2022

For more information, visit
www.augenklinik.uk-koeln.de.



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Directions to the University Hospital

Public transport:

Bus: KVB line 146, stop “Geibelstraße”
Tram: KVB line 9, stop “Lindenburger Allee (Universitätsklinik)”
Tram: KVB line 13, stop “Gleueler Str. / Gürtel”

Car: Drive onto the hospital premises: across from the address Gleueler Str. 117, turn left after the gate, straight ahead for 250m. Alternatively, there is direct access to the clinic coming from the north by way of Joseph-Stelzmann-Straße. There are very limited parking options here that require a fee (30 minutes free). The use of underground parking and public transportation is highly recommended during the day.

Underground parking:

(About 10-minute walk from here to the clinic)
Caution – 2 m maximum clearance height
Access through cardiology center:
across from Kerpener Straße 85
Access through ward building:
across from Kerpener Straße 103

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