



## Expert interview

### “Sequencing & dissection” for the systematic identification of disease

The pathologist’s field of work is highly exciting and innovative. Why does this not appeal to new physicians coming up? Ms. Gisela Kempny, Managing Director of the Bundesverband Deutscher Pathologen e.V. [Association of German Pathologists], explains the background in an interview. She also reveals why pathology is attractive and outlines current developments which are bringing the focus back to this field of medicine.



#### What is the personnel situation in the pathology department like?

**Ms. Kempny:** In terms of numbers, it looks bleak, meaning it is not possible to compensate for the rising importance, but also higher workloads, in pathology. Only 0.4% of all doctors are pathologists. They are also getting a little older and there are few younger physicians coming up in the field.

We have consistently only trained between 55-70 pathologists per year for decades. We even have agencies these days which specialize in searching for good trainees for hospitals. We therefore advise pathologists to plan 5-10 years in advance if they are looking for a replacement for their institute.

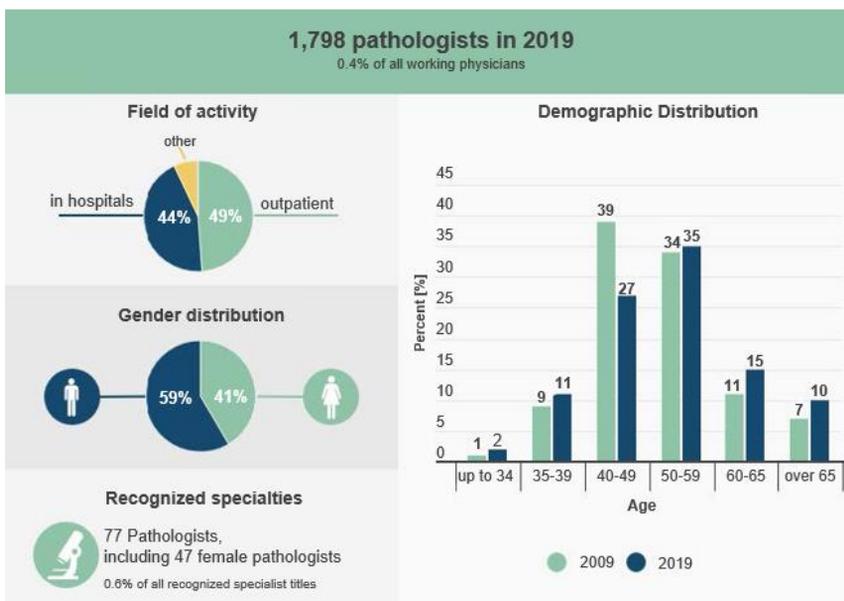
#### What could be the reasons for the lack of young talent?

**Ms. Kempny:** Pathology is attractive but many people are not aware of that. There are three basic conditions which have led to this which we unfortunately cannot change. Firstly, the so-called theoretical year, which formed part of specialist medical training, was abolished in 1992. Everyone who worked in a clinical field had to study a theoretical subject for 1 year, and diagnostic subjects such as pathology were included in this. The old saying: “You don’t become a pathologist, you remain a pathologist” also dates back to that time. Secondly, the study of medicine today places great emphasis on case-based teaching, so that pathology – except oncology – is rarely included. Thirdly, both internal medicine and surgery are compulsory subjects during the practical year of medical studies. Students may choose their third subject, but diagnostic subjects such as pathology or laboratory medicine are not the ones that are primarily selected.



## What benefits does pathology offer?

**Ms. Kempny:** Appreciation for the work done by pathologists is increasing enormously in institutions. They are now so much in demand that I can only tell every young doctor that they should take up pathology if they want to feel really comfortable and sought after. There are many choices and positions. Although the number of women in pathology today is still below average, the percentage of women in this field is constantly increasing. This also has to do with the favorable situation. A trainee today can assume that she will not have to move shifts and will have weekends off. This means it is very easy to combine work and family. There is no other field with as little bureaucracy and as few shifts as pathology.



### Status quo pathology

How many pathologists are there in the Federal Republic of Germany?  
How are they distributed?  
– Relevant data has been provided by the Medical Statistics of the Federal Medical Association.<sup>1,2</sup>

## What current developments are shifting the focus back to pathology?

**Ms. Kempny:** What is currently offered in pathology is highly relevant to society, e.g., all of precision medicine in oncology. There is no precision medicine without precision pathology. The pathologist provides the basis for decision-making: the tumor with its genetic constellation, its effect, prognosis and therapy recommendation. On the other hand, the 300-year-old method of conducting autopsies provides important insights into the current corona pandemic. We have surveyed over 150 autopsies in the Federal Republic and determined that this is different from the typical influenza. It affects not only the lungs but also involves all other organs. Thrombi are present everywhere. The question of why that is also being answered by pathology. Our job therefore entails working in the high-tech sector as well as in the seemingly old-fashioned realm of autopsy. Our president, Prof. Dr. med. Karl-Friedrich Bürriq, has compiled an appropriate job description: "Sequencing and dissection". Both serve the purpose of systematic identification of disease.



## What challenges do pathologists face, especially in the field of personalized cancer therapy?

**Ms. Kempny:** Contrary to common belief, money no longer plays a major role. Chapter 19.4 of the uniform assessment standard, which is extra-budgetary, well-remunerated and open to new methods, has formed a solid foundation for outpatient molecular pathological tumor testing since 2016. It's more the structures which pose a major challenge. We must quickly update pathologists and bring them up to the standards of high-tech medicine and technology. Pathologists must be familiar with molecular pathology, sequencing, EDP and biomathematics. Internally, we see a considerable need for further training in this area. We also offer a Summer School largely at our expense for those trainees who do not have molecular pathology in their institutes, which allows us to reach almost 20 percent of students in a given a year. We must, of course, retain our knowledge base surrounding autopsies.



**Gisela Kempny**  
Managing Director  
Bundesverband Deutscher  
Pathologen e.V. (BDP)

## What are other possible solutions?

**Ms. Kempny:** The entire pathology workflow needs to be digitized so that it proceeds quickly, reliably and with few errors. Our findings must be standardized such that they are machine-readable and evaluated according to an underlying standard. We need artificial intelligence to help pathologists arrive at a diagnosis. We support projects which translate pathologists' know-how into machine language. Another branch of digitization is communication. We have 450 Institutes of Pathology in the Federal Republic and not every institute can represent the entire pathology spectrum. It is necessary that those on site have access to knowledge and that experts communicate with each other to ensure adequate patient care. That will also help relieve the personnel situation.

**Dear Ms. Kempny, Thank you very much for the interview!**

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## Sources

1. Bundesärztekammer. Ärzttestatistik zum 31. Dezember 2019; unter: [https://www.bundesaerztekammer.de/fileadmin/user\\_upload/downloads/pdf-Ordner/Statistik2019/Stat19AbbTab.pdf](https://www.bundesaerztekammer.de/fileadmin/user_upload/downloads/pdf-Ordner/Statistik2019/Stat19AbbTab.pdf) (abgerufen am 08.07.2020).
2. Bundesärztekammer: Ärzttestatistik zum 31. Dezember 2009; unter: [https://www.bundesaerztekammer.de/fileadmin/user\\_upload/downloads/Stat09A/bbildungsteil.pdf](https://www.bundesaerztekammer.de/fileadmin/user_upload/downloads/Stat09A/bbildungsteil.pdf) (abgerufen am 08.07.2020).

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