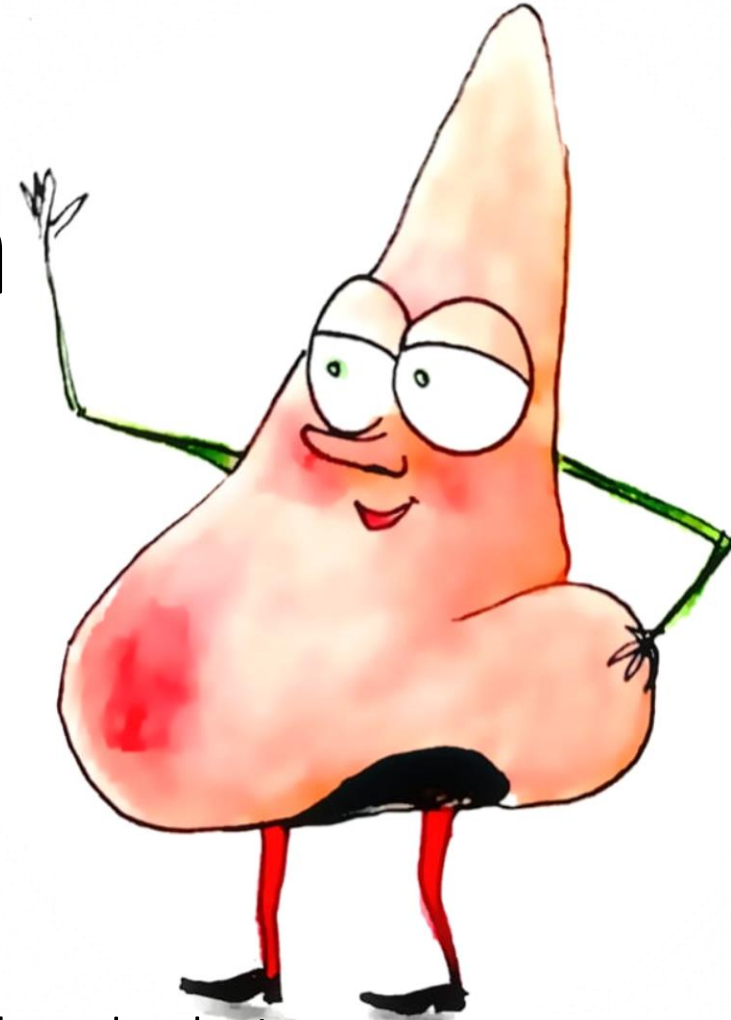
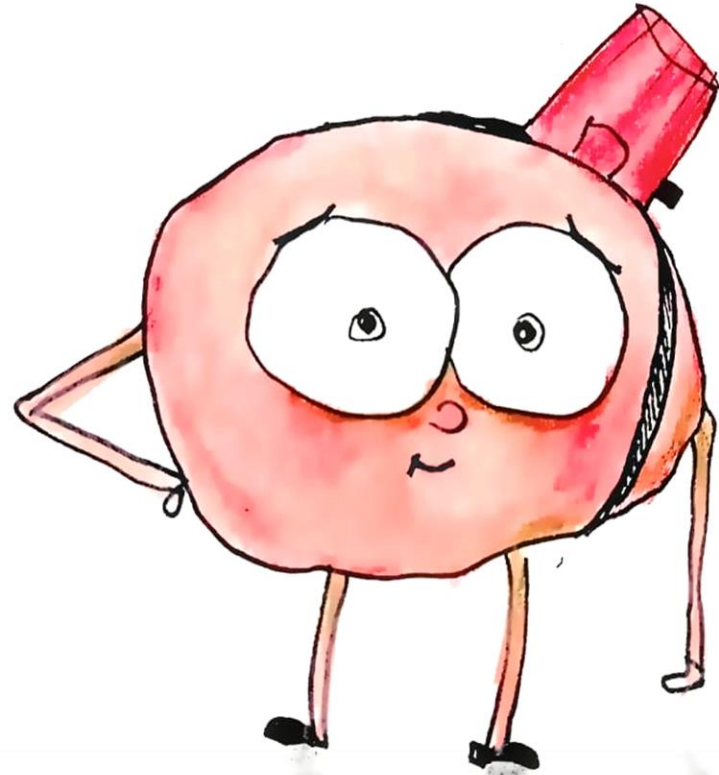
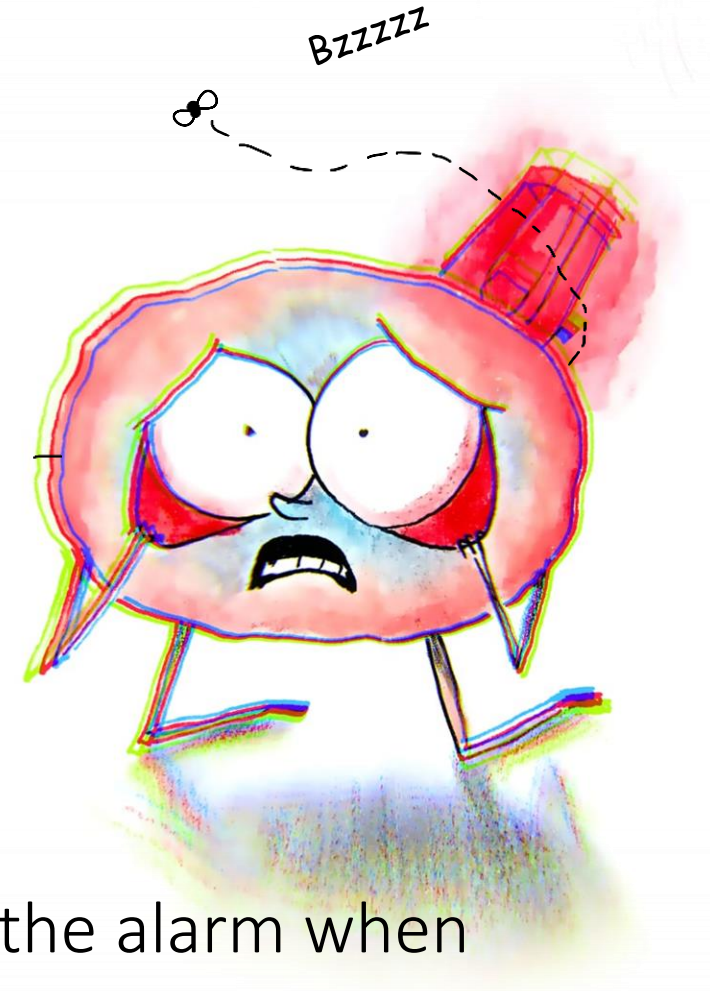
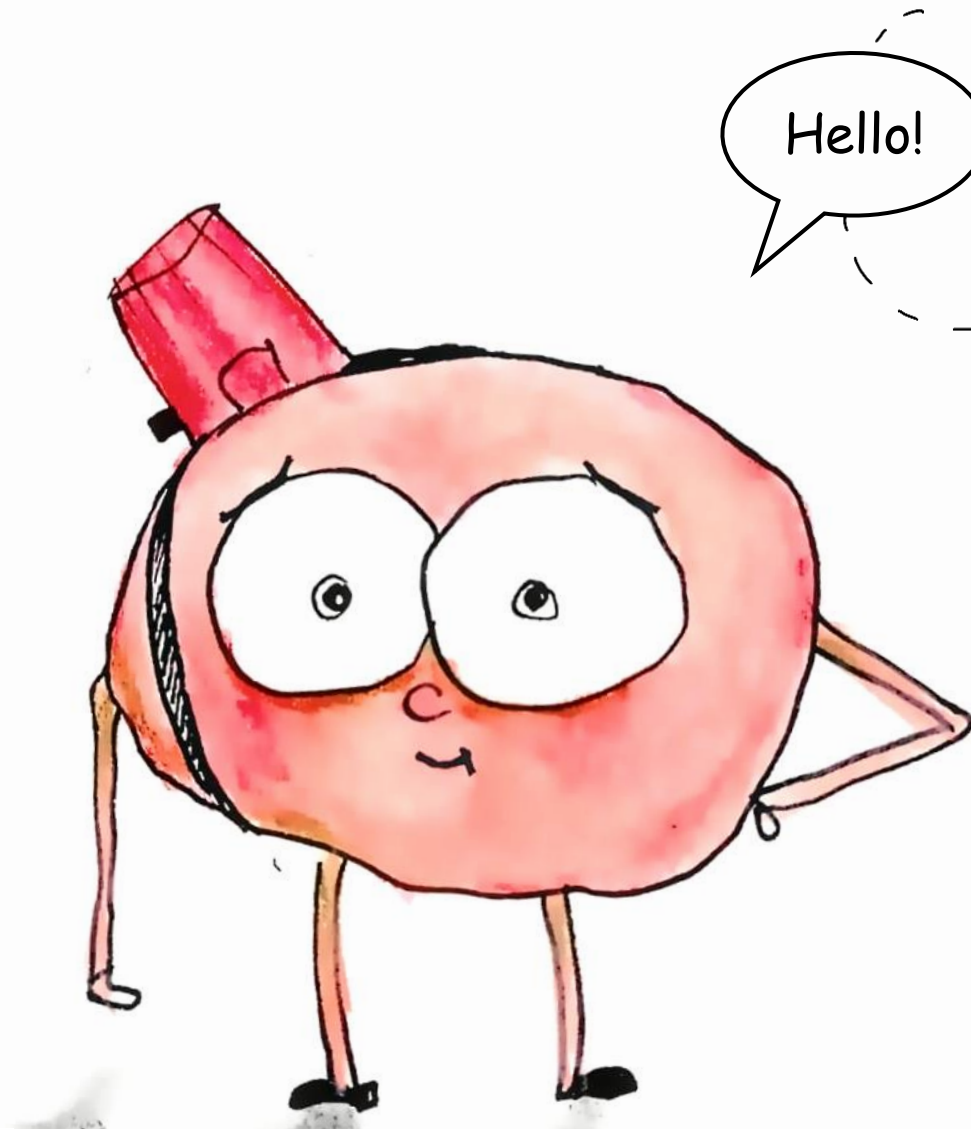


# Amygdala-Alarmina and Sniffy the Nose



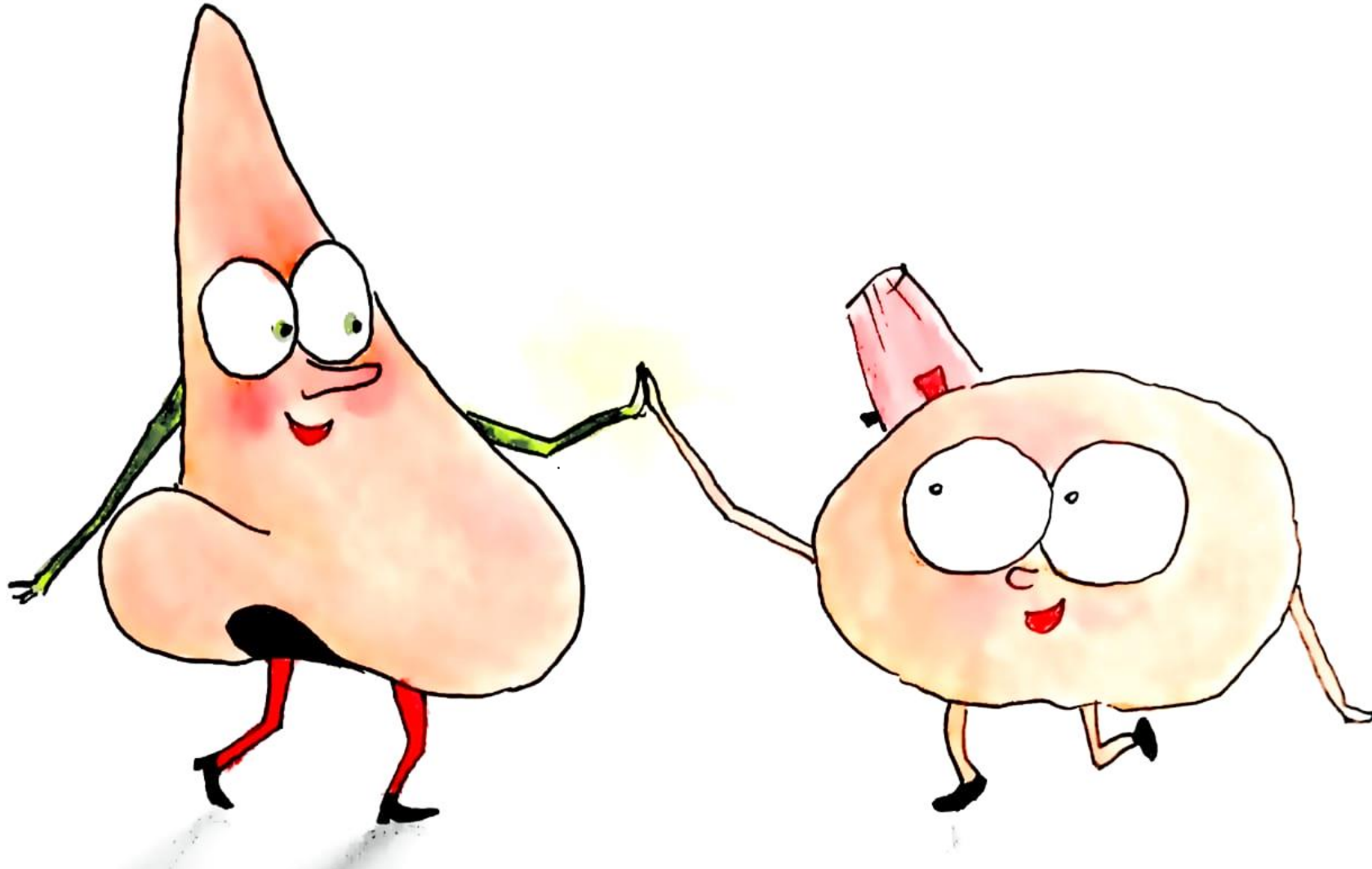
Subproject A04 of the TRR379, for children and overwhelmed relatives

This is **Amygdala-Alarmina**. She lives inside the head.  
Everybody has an Alarmina!



Her job is to sound the alarm when things get dangerous, to always protect us well – but sometimes she overreacts or misunderstands things...

Sometimes, **Sniffy the Nose** helps her doing so. They are a great team!



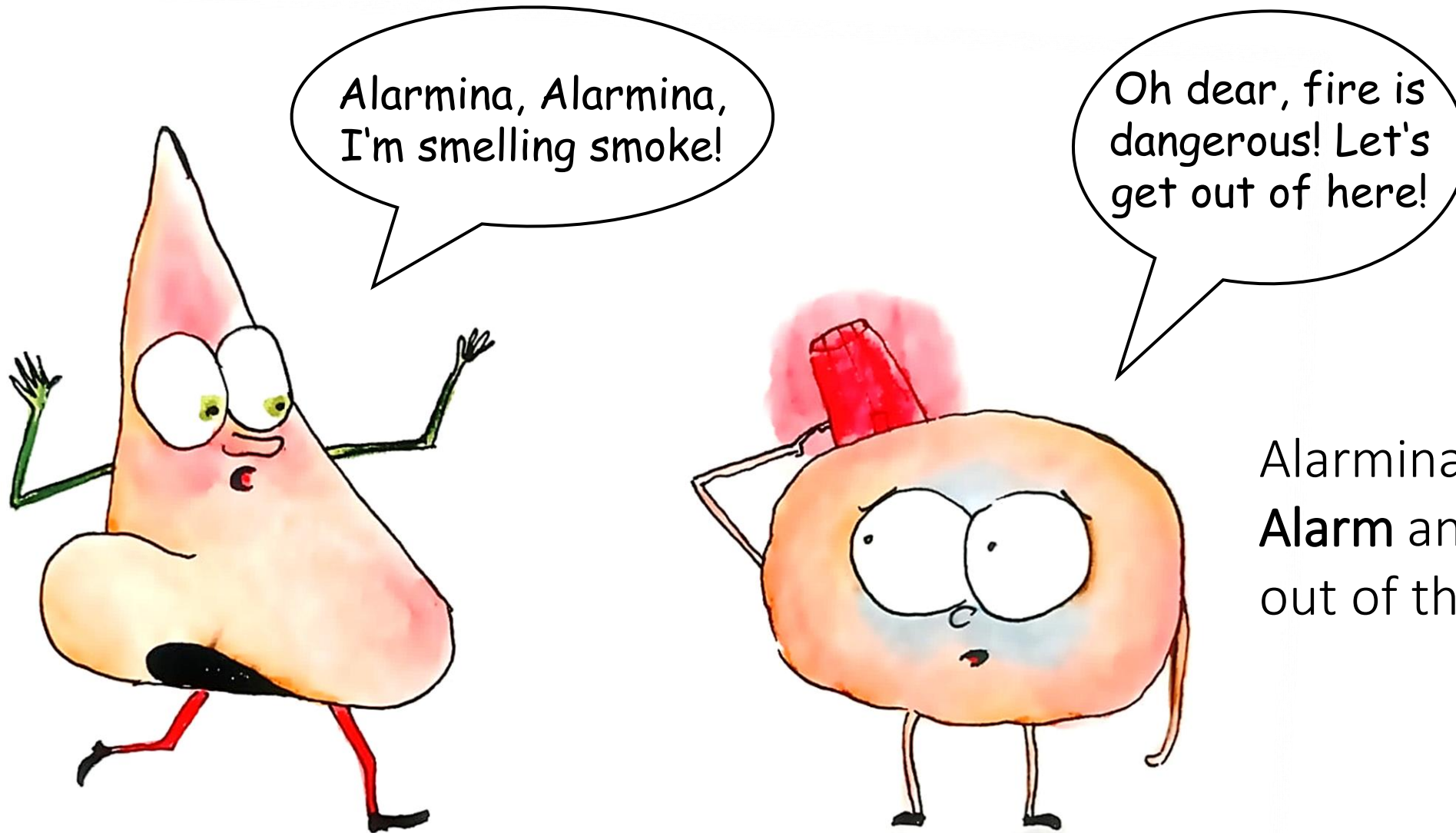


For example just last week,  
Anna's dad was making yummi  
pancakes...

But suddenly one pancake caught  
on **Fire**! The whole kitchen  
smelled like smoke!



Sniffy, the Nose of Anna was luckily paying attention, she **immediately** told Alarmina about the smoky smell!



Alarmina sounded the **Alarm** and Anna dashed out of the kitchen.



Thanks to Alarmina's alarm Anna and her dad got a **fright** and could react quickly – Anna got to safety and her dad put out the fire.

Thanks to Sniffy and Alarmina's teamwork, Anna and her dad finally ate their pancakes – just a little crispy!



Amygdala-Alarmina is jumpy — for some more than others. Sometimes she sounds the alarm even when there's no danger. This can happen to people who have been through tough times, or some who are just born a little different. And that's okay — we're all unique, and that's what makes us special!

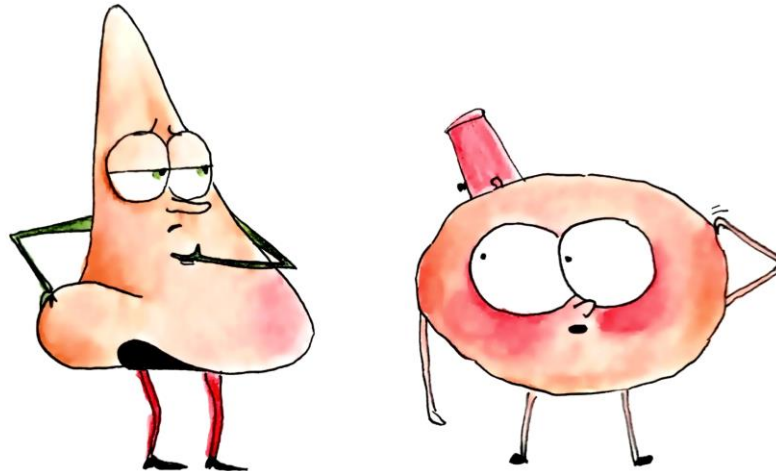
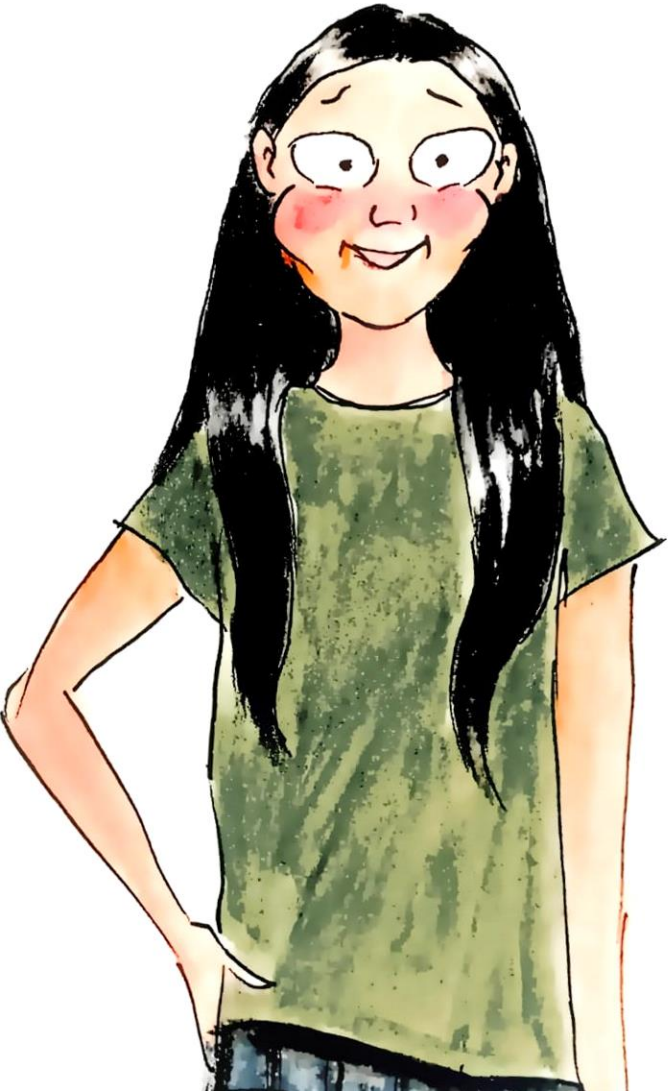




We are scientists from Project A04 of  
TRR379!

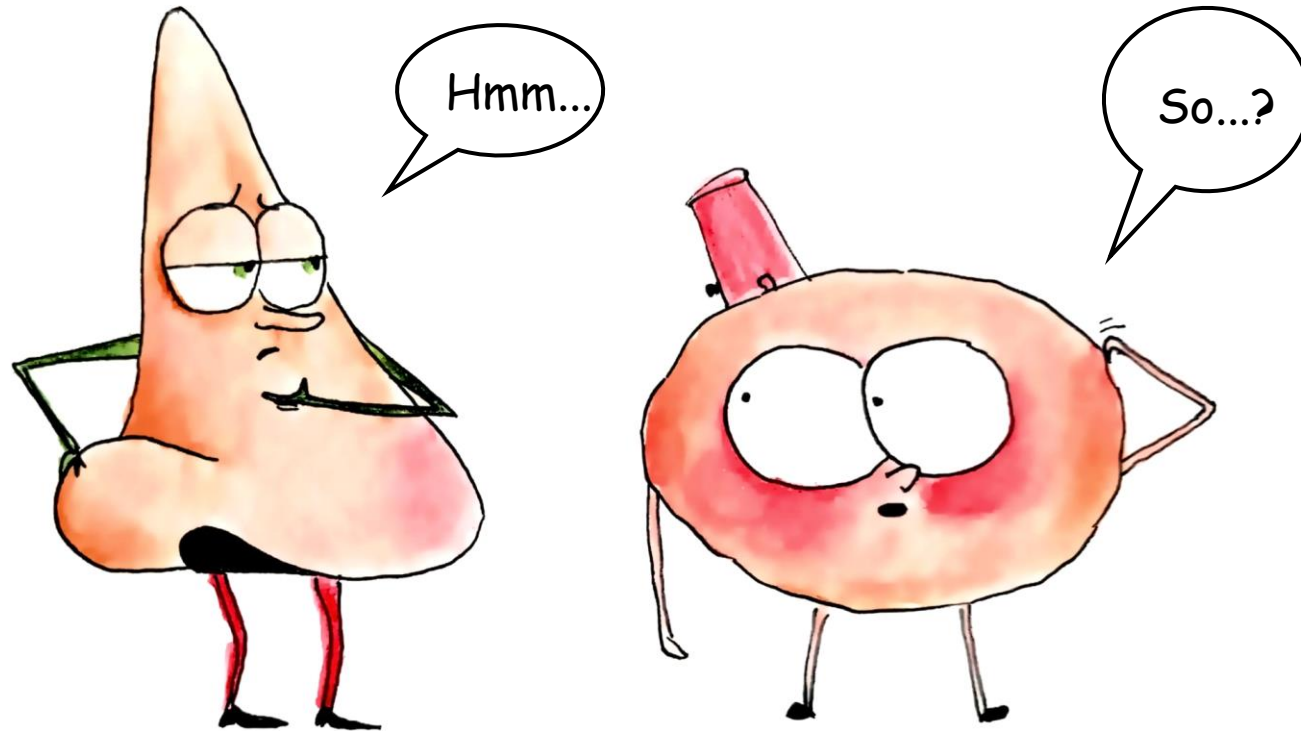
We want to learn more about  
Amygdala-Alarmina and see how  
close she is to Sniffy the Nose.

Are they always such a great team?

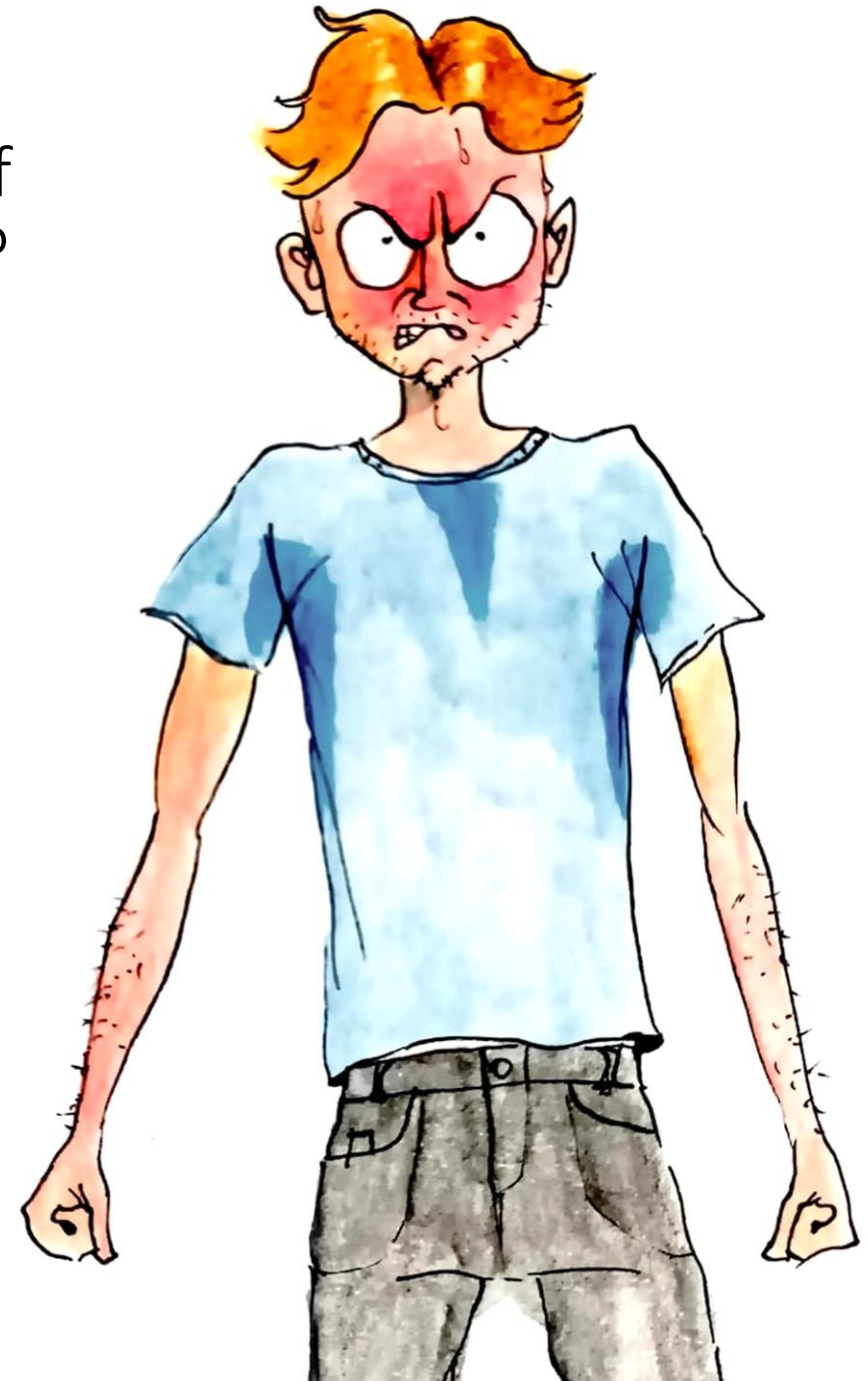




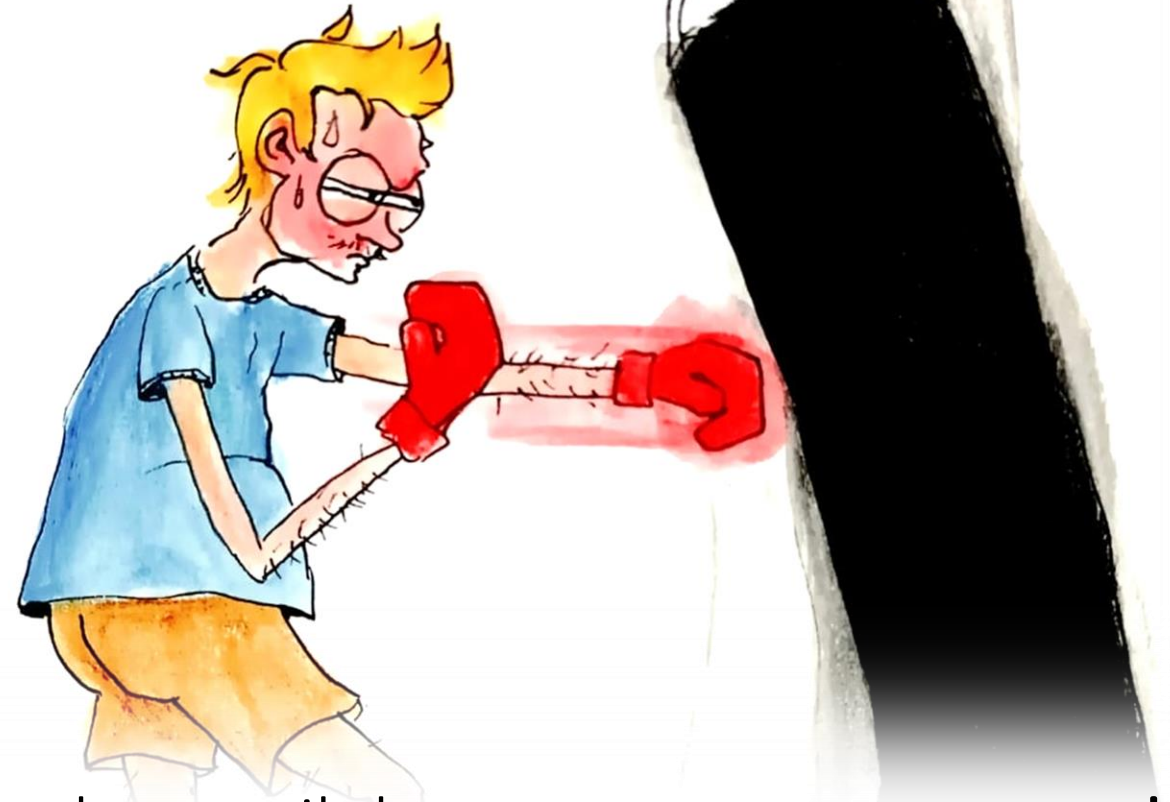
Specifically, we want to know if and how Alarmina sounds the alarm, when Sniffy smells the sweat of angry people – they can be dangerous too, right!?



Other scientists have already given us clues that this might be true!



To prepare the experiment, we first need to collect sweat from angry people. To do this, they have to play a really annoying video game...



... then they box until they sweat — **anger-sweat!**

Before, we will take **normal sweat** samples from those people, after letting them play a fun game and doing a more peaceful sport. Like this, we can compare the normal sweat and the anger-sweat later on!

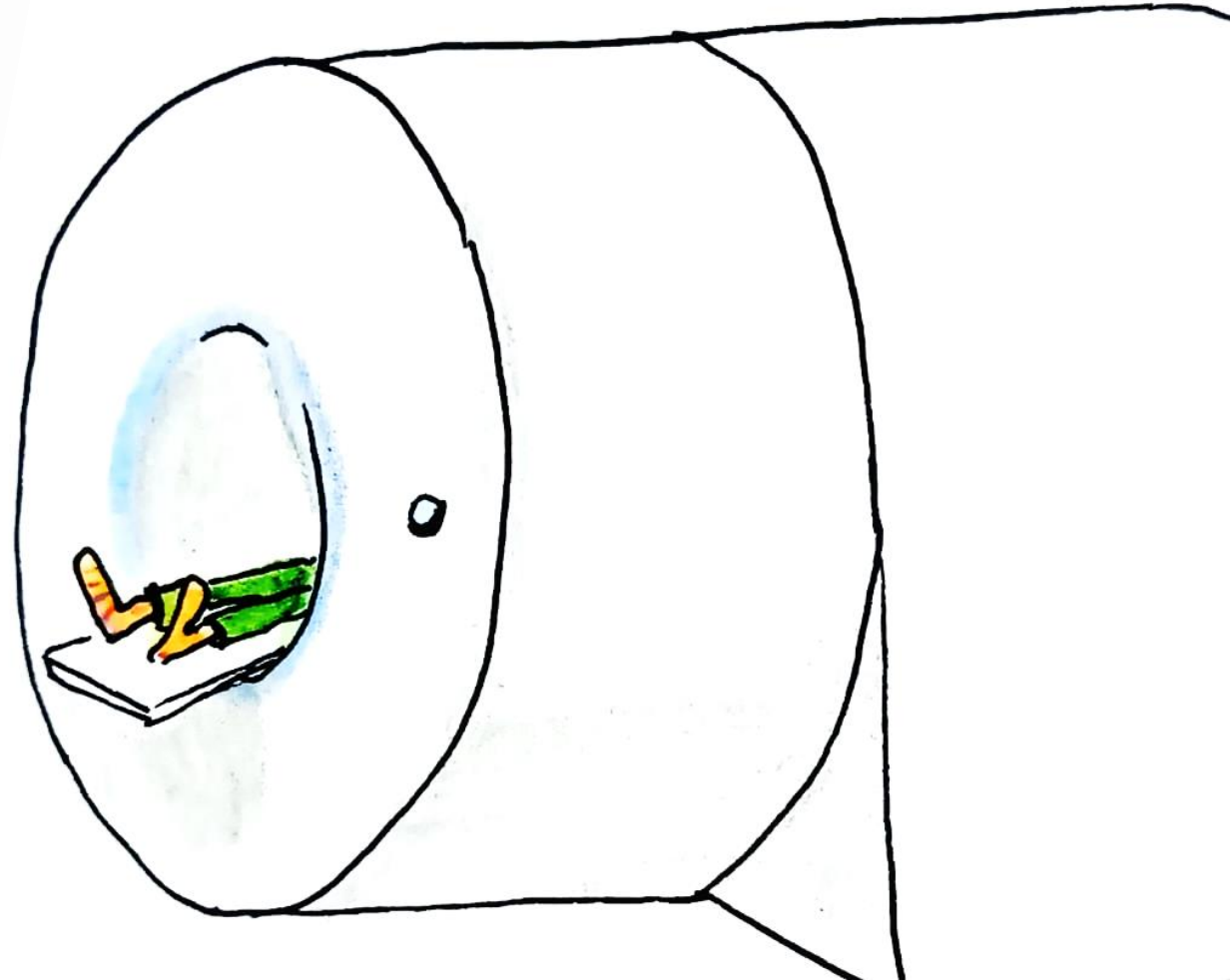
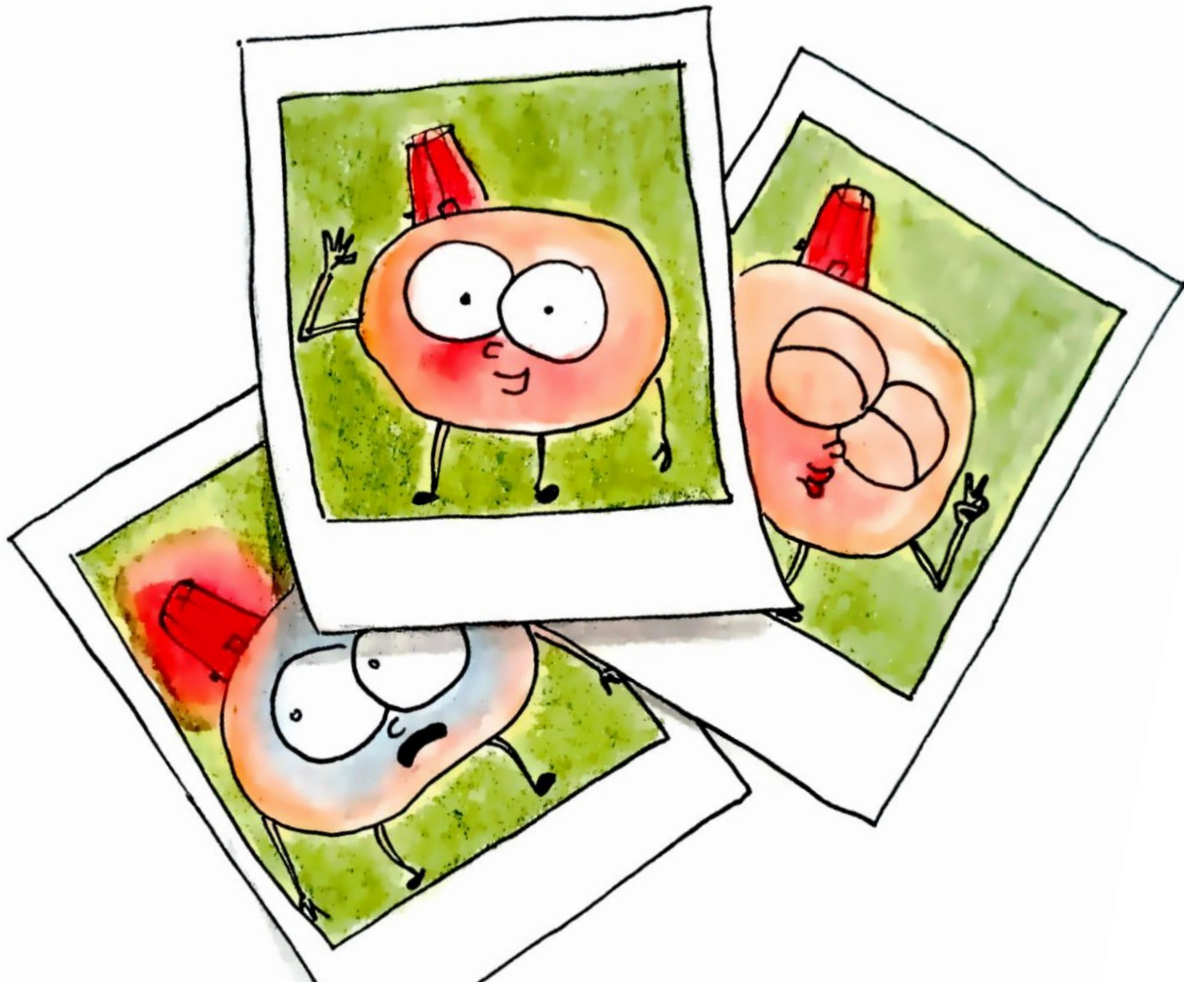
The normal sweat and the anger-sweat will be stored in a very cold freezer, at - 80 degrees. That's even colder than the North Pole - even polar bears would feel chilly!



This way, the sweat stays fresh and doesn't smell like old socks - that would be disgusting, as **other people will still have to smell that sweat later on**. That's the most important part of the experiment!

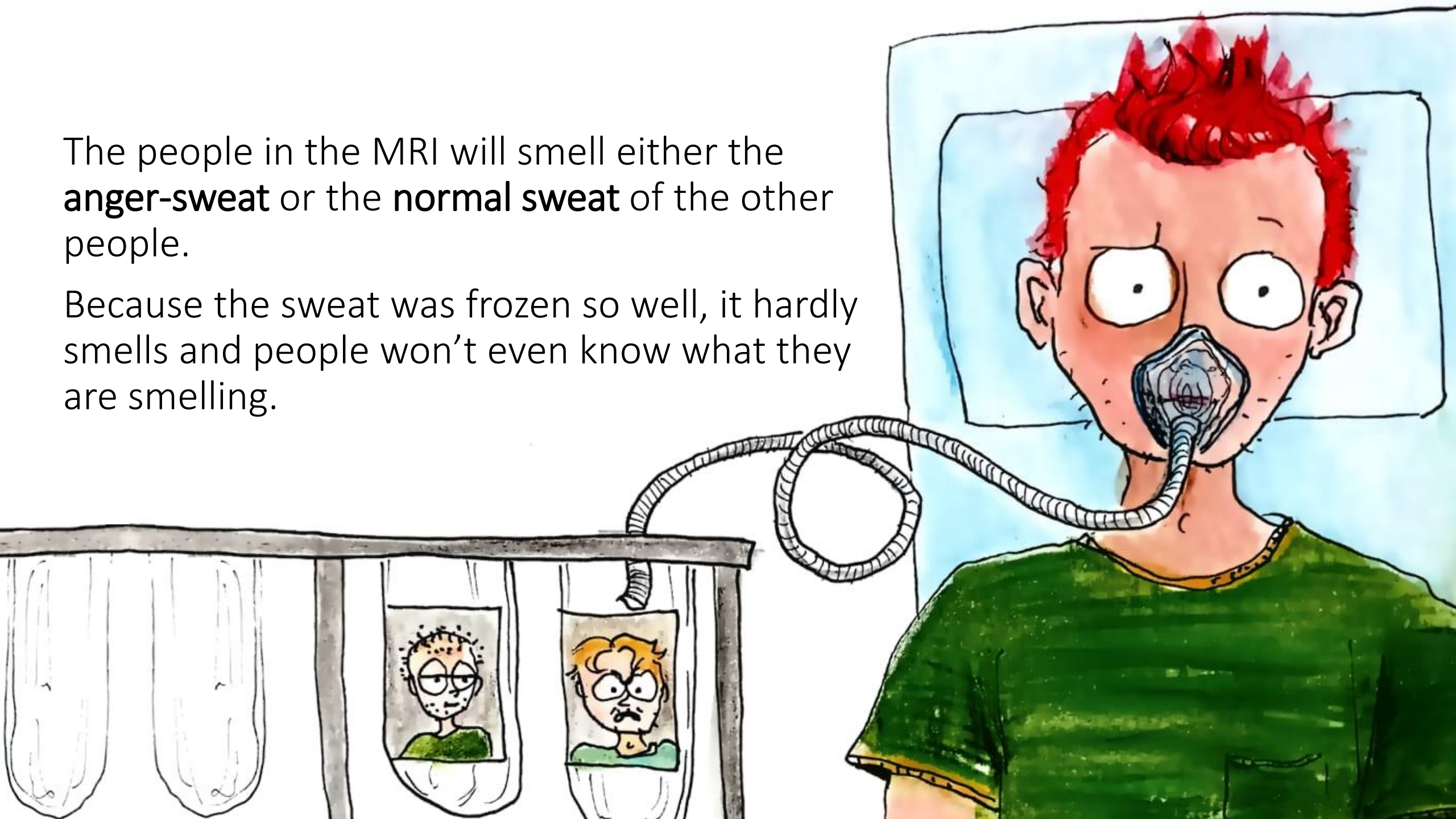


We will put people in an **MRI** —that's a big tube that takes pictures of their brains. That way, we can see what Amygdala-Alarmina is up to!



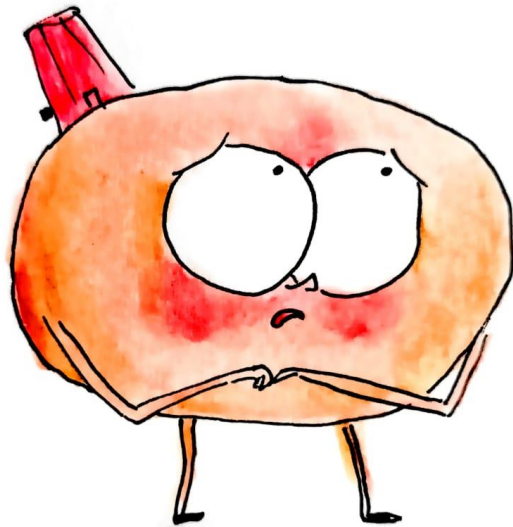
The people in the MRI will smell either the **anger-sweat** or the **normal sweat** of the other people.

Because the sweat was frozen so well, it hardly smells and people won't even know what they are smelling.

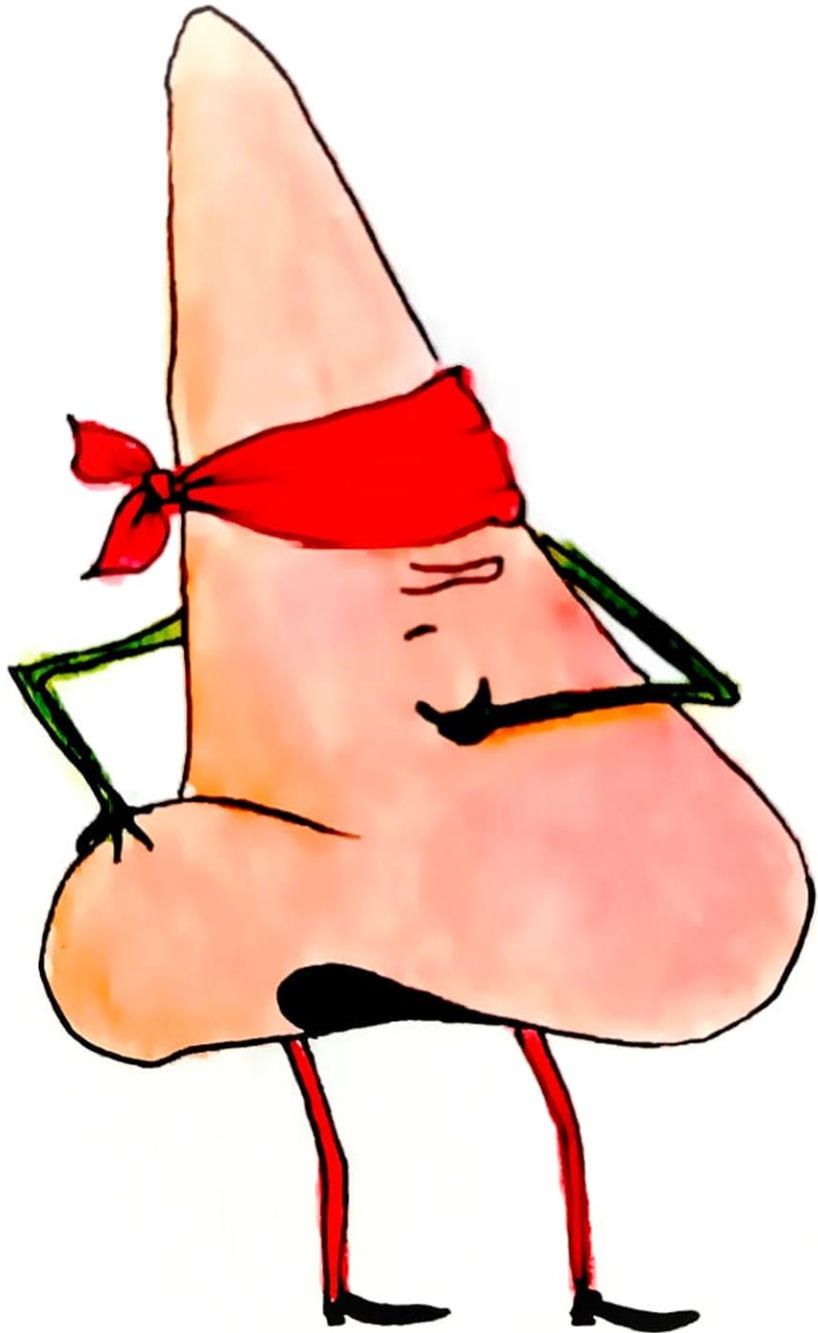




While people smell the sweat, we will make them **nervous**. On a screen, we'll show someone coming uncomfortably close — do you know that feeling? It's not very nice, is it?







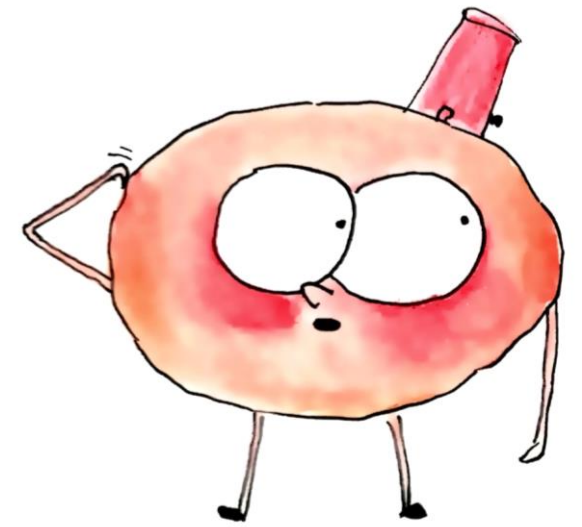
Finally, we want to see if and how Sniffy can tell Alarmina that she's smelling anger-sweat.

We'll take pictures of Alarmina in the MRI to see if she raises the alarm when Sniffy smells anger-sweat — without knowing what the smell is.

Can Sniffy **subconsciously** recognize the smell?



Do you think Sniffy the Nose can do it?



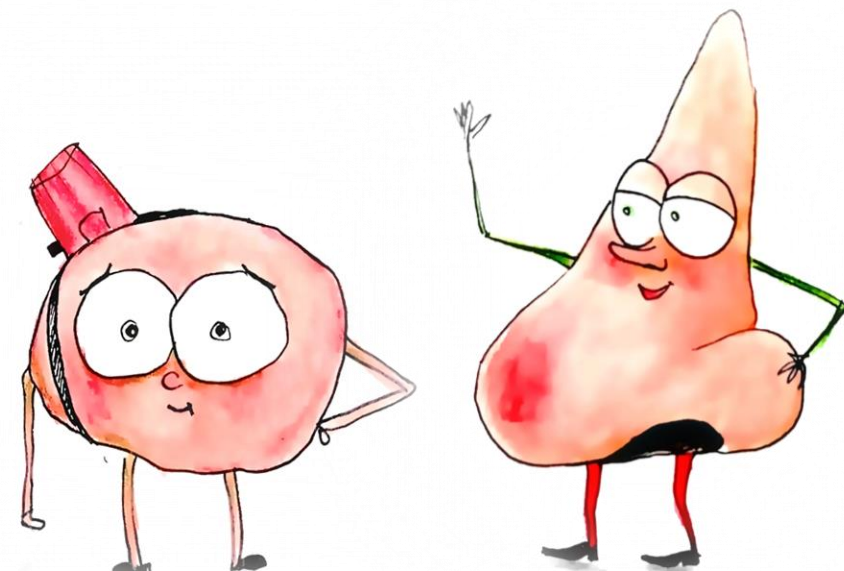
Do you think Amygdala-Alarmina gets more nervous when Sniffy smells anger-sweat than when she smells normal sweat?

And lastly, do you think Amygdala-Alarmina in some people will react more strongly than in others? Maybe in those who have been through tough times?





We are curious and hope to  
find the answers with this  
experiment!



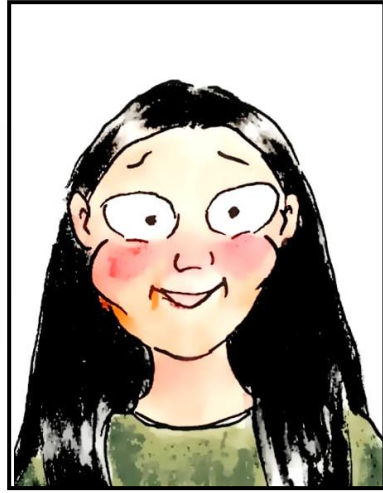


# Thank you for your interest!

If you have further questions, feel free to contact us:



[chmallmann@ukaachen.de](mailto:chmallmann@ukaachen.de)



[yqi@ukaachen.de](mailto:yqi@ukaachen.de)



[uhabel@ukaachen.de](mailto:uhabel@ukaachen.de)



[nchechko@ukaachen.de](mailto:nchechko@ukaachen.de)

For more information visit:  
<https://trr379.de/news/2025-what-is-a04-about/>

Text and illustrations by Paula Fraustein: [paula.fraustein@rwth-aachen.de](mailto:paula.fraustein@rwth-aachen.de)

