

The
Meta-
bolical
Gang



A Prize Recipe



More information about the diseases covered in this book:
www.guiametabolica.org

The Metabolical Gang Collection

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A Prize Recipe

I am called **Annie**.
I am sixteen years old and I am studying Business Administration. Nobody expected that, because I never used to like studying. But now I have got an idea in mind and...at the end of the book, you will find out. Oh yeah! I have citrullinemia and I love going hunting for mushrooms.



I'm **Thomas**
and I am finishing junior high school. I have leucinosia and my best friend Eloy has glutaric aciduria. We still don't know what we want to be when we grow up. I like music a lot, but I don't know if I will play in an orchestra or in a group of Celtic music...



I am **Laura**.
I am sixteen and a half, and like Gabriel, I have PKU. I love cooking, so I am at the Culinary Institute. I would love to set up a restaurant, but I know it's a dream. This year my friend Amber and I are planning to work very hard.



I'm **Gabriel**.
I am on the verge of becoming an adult and I have PKU. I study Biochemistry because I have always liked science and I want to learn more about my disease and other metabolic disorders. I really miss going to high school with the gang.



My name is **Arnau**.
I am sixteen and a half and since I have always been a drawing freak, finally I have had my dream come true and I am studying at art school. I have homocystinuria. With this disorder, if you take care of yourself and live healthily, you can have a normal life.

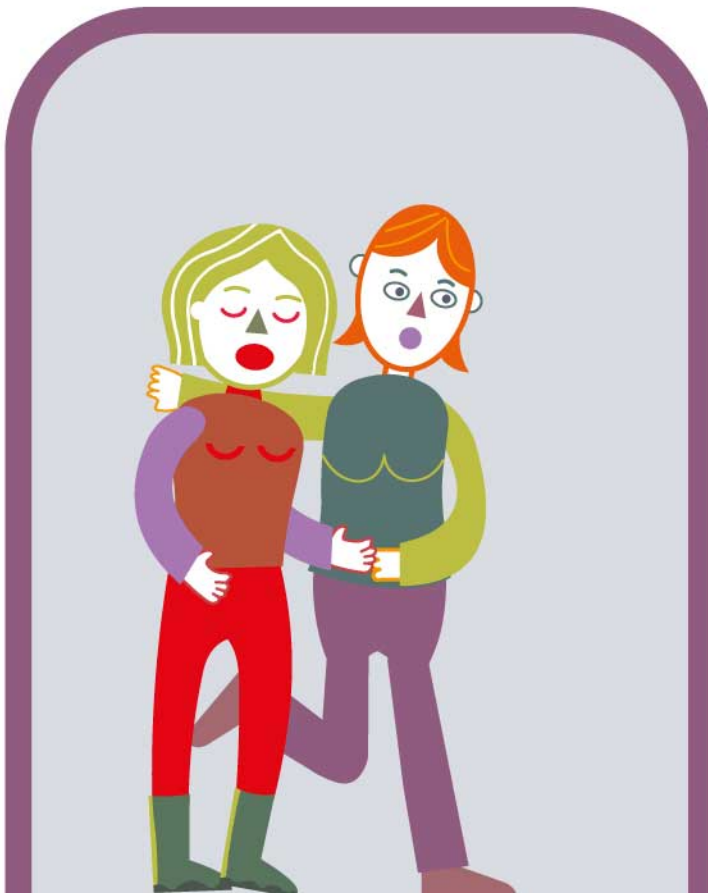


I am **Amber**.
I am sixteen and I have tyrosinemia. I am at cooking school with Laura and we have a wonderful time inventing low protein breads and cakes. If Laura sets up her restaurant, I hope she gives me a job as a chef.

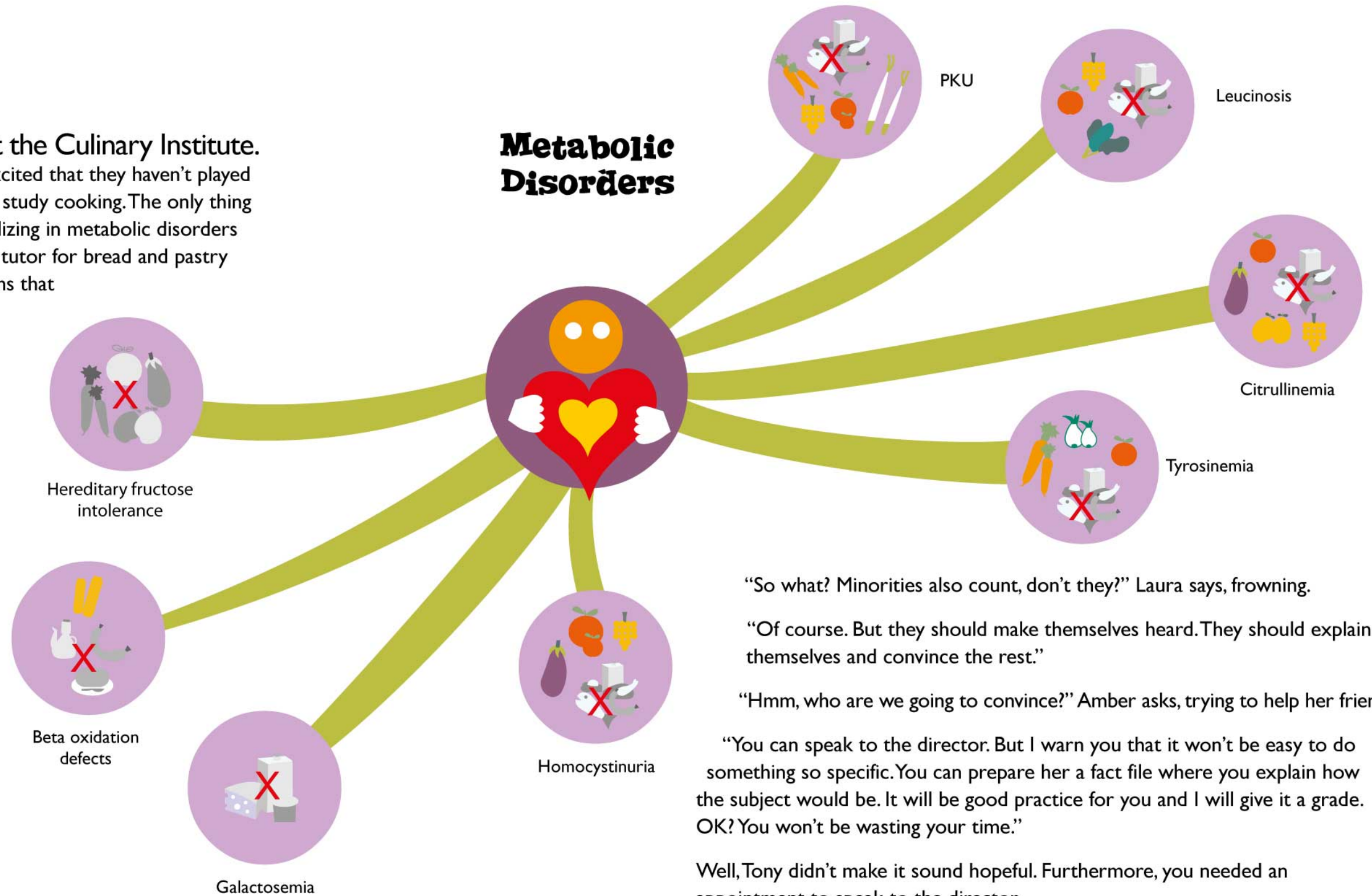


The school year has begun at the Culinary Institute.

Laura and Amber managed to get in and they are so excited that they haven't played truant at all. Since she was a little girl, Laura wanted to study cooking. The only thing that she does not like is that there is no subject specializing in metabolic disorders and for that reason, she has gone to speak to Tony, the tutor for bread and pastry making. But things are not as easy as they seem. It seems that those who have PKU or other metabolic disorders are, according to Tony, a minority.



Metabolic Disorders



“So what? Minorities also count, don't they?” Laura says, frowning.

“Of course. But they should make themselves heard. They should explain themselves and convince the rest.”

“Hmm, who are we going to convince?” Amber asks, trying to help her friend.

“You can speak to the director. But I warn you that it won't be easy to do something so specific. You can prepare her a fact file where you explain how the subject would be. It will be good practice for you and I will give it a grade. OK? You won't be wasting your time.”

Well, Tony didn't make it sound hopeful. Furthermore, you needed an appointment to speak to the director.

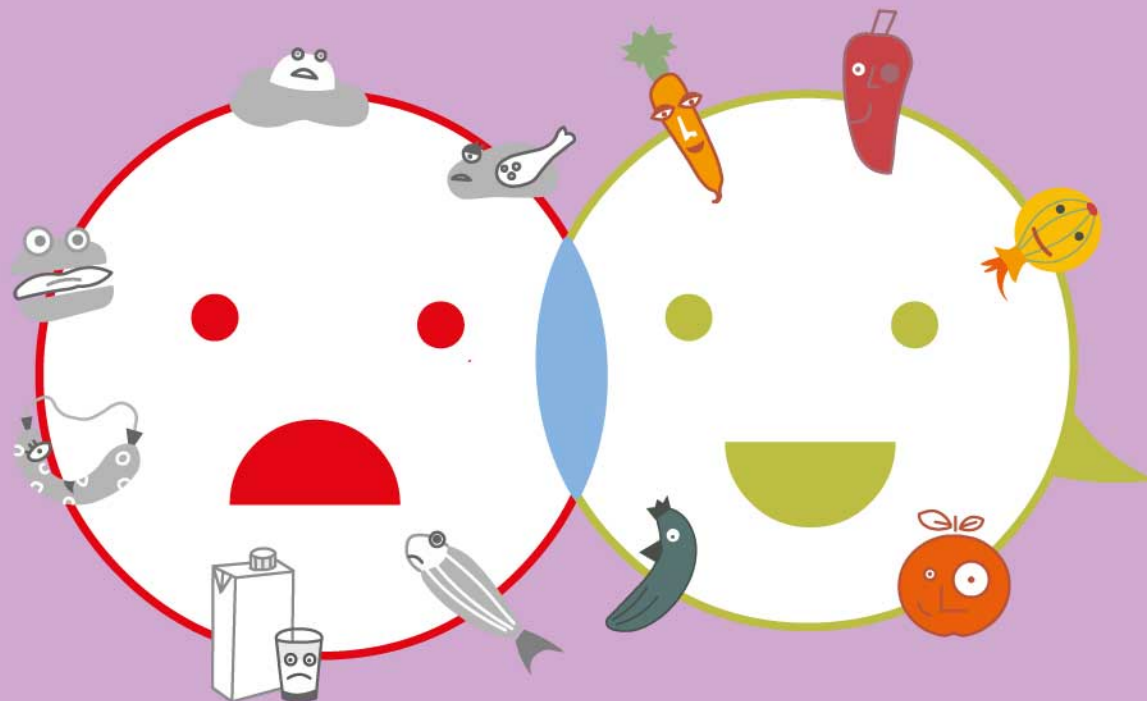
“Adult life!” The two girls sigh. “It's all about meetings and papers!”

To make the fact file, Laura asks her friend Arnau for help. He is studying design. He has also got into the school of his dreams to do what he likes best: drawing. He does everything, fanzines, manga, portraits...And he loves his work at a youth magazine as a reporter. When his friend asks him to design her fact file, Arnau accepts right away.

"It has to grab you with the visuals. I will make you a design that they won't be able to say no to."

He also wants them to have the specialized subject. The more people know how to cook low protein meals, the easier it will be for boys and girls like them.

"You should speak to Gabriel about the more technical bits."

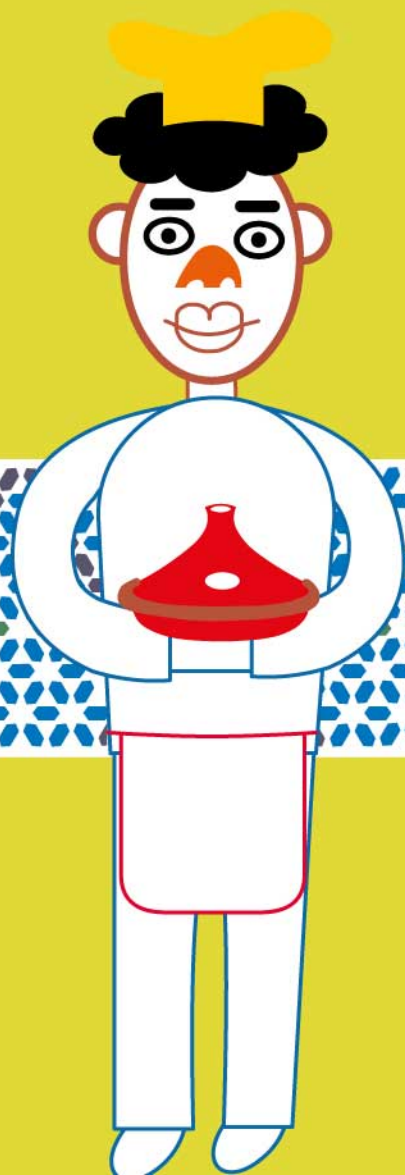


Gabriel studies biochemistry at the University. He wants to be an expert in metabolic disorders to help the children who have them. Like his friends in the gang, he always had a clear idea about what he wanted to do when he grew up. All except Annie, who surprised them when she registered for the course of Business Administration. The truth was, they could more easily imagine her as an acrobat in a circus or a veterinarian in a clinic. But Annie has changed a lot. Now she is taking her studies very seriously. She says that she has future plans but they are a secret that she can't reveal to anyone.

Laura and her friends often meet to have a drink and talk about life. After having spent so many years together at school and at high school, they miss each other. They also miss little Thomas, who is not so little anymore. He's finishing junior high school and continuing with his violin studies. They seldom see him, but on birthdays they always get together to celebrate.

Apart from the fact file for the new subject, Laura has had another thing on her mind for the last few days. A new boy called Adib has come to live in her building. He has just come from Morocco to work in his uncle's restaurant and send money to his family.

"Amber, he is so cute!"



Amber wants to meet him and she goes up to Laura's house to see if they bump into the new neighbour.

"Hello."

They run into him on the landing of the first flight of stairs, he was running down the steps two by two.

"Hello." Laura is as red as a tomato.

"Gosh, all he did was say hello!" Amber says when they are in Laura's room.

But she agrees with Laura. Adib is not bad at all. The problem, according to Laura, is how to move from "hello" to "shall we go for a coffee."



The course continues at a good pace. The two girls enjoy the pastry making classes. Though they can't taste those cakes, at home they make their adaptations without protein. Laura's mother is a very good cook and she helps her, so she can bring some innovations to the class. For that reason, she gets very good grades and they are very happy with her at school.



At last, the director has given them an appointment to come and see her. Amber and Laura knock on the door and go in. After greeting her, Laura goes straight to the point.

"As you know, Amber and I have metabolic disorders and we thought that we could have a subject about foods for the people who suffer from them."

"Your proposal is very interesting and it says a lot in your favour. But unfortunately the plan of studies takes into account many factors and it is not possible to do such a specialized subject."

Laura tries to respond, but the director goes ahead.





“At any rate, your fact file is frankly good. And with Tony and the rest of the teachers we have been thinking that it would be a good idea to do something referring to health in the school. So for next year, we will try to programme a seminar or a summer course dedicated to food for disorders, not just protein metabolism ones like yours, but also other types, like allergies, intolerances and so on. So it would be useful for more people.

The two friends' faces were transformed.

And that's not all. This year we have decided to organise a Competition of Healthy Cooking through our web. It will be a way of promoting the school and at the same time, healthy cooking. You, Amber and anyone else who is interested can send in your recipe proposals. There will probably be a money prize. We are negotiating it.

“What a good idea!”



Laura and Amber come out of the office happier than they expected. The summer course and the competition are two great opportunities to present Metabolic Cuisine. They have decided to organise a tea party at Amber's house and to invite the rest of the gang to celebrate. Something occurs to Laura.

"I'd like to invite Adib, but I'm too shy to speak to him."

Amber has an idea:

"Laura, dude: you have it on a plate! Invite him to participate in the recipe competition. If he works in a restaurant, he must know how to cook. And since he's Moroccan, he'll add an exotic touch."

"Amber, you are a genius!"



Laura goes home super excited. She goes up the three flights of stairs on foot, jumping two steps at a time. She stops a moment in front of Adib's door, her heart pumping at a thousand beats a minute. Finally, she rings the bell. The boy answers and greets her with a charming smile.

"Did you come up running?"

"No. It's that in my school they are going to have a recipe competition and we thought that you, as you work in a restaurant, if you like, you could participate with one from your country, what do you think?"

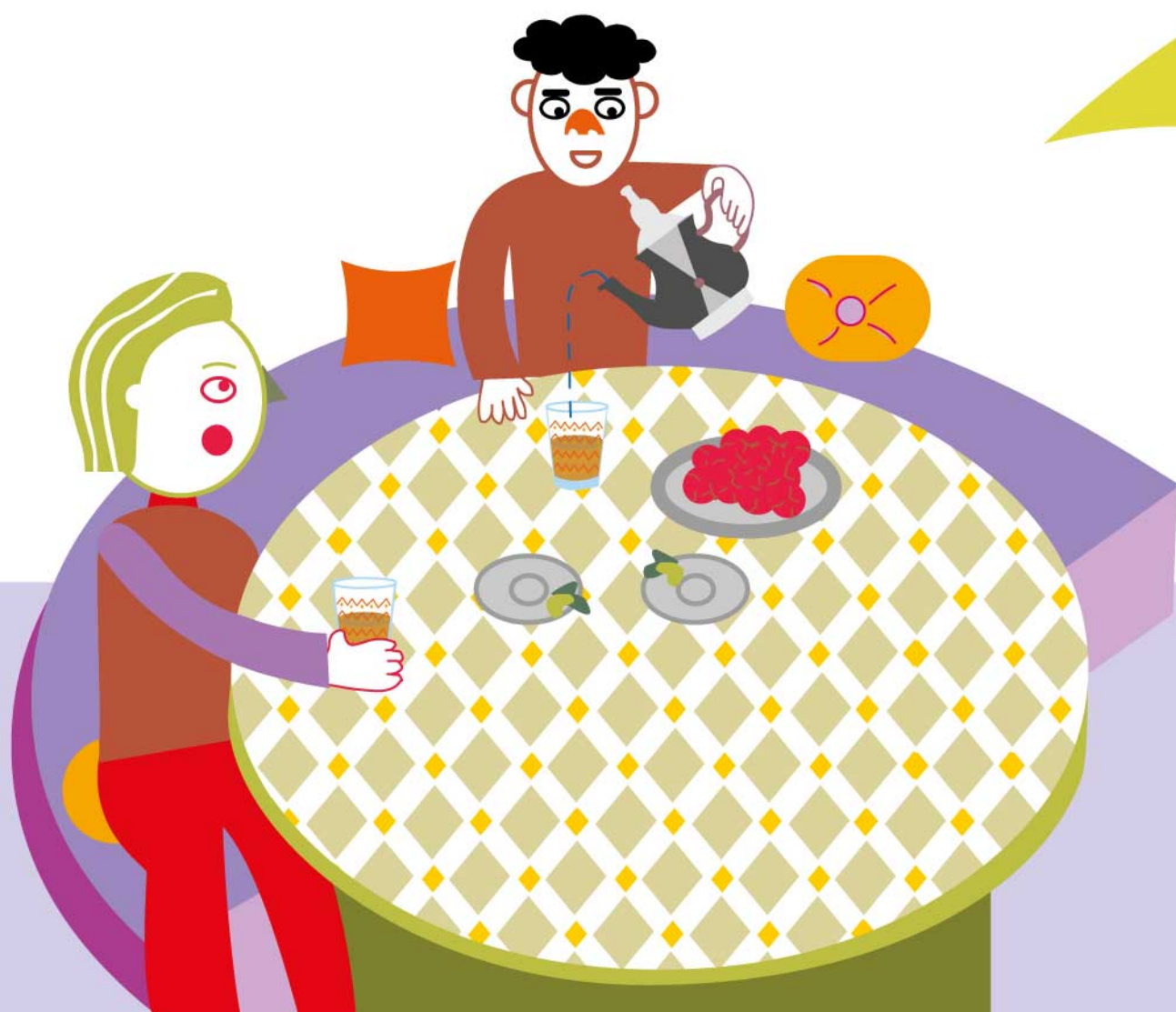
She said everything without breathing. Adib wants the details, so he proposes that they go down to the restaurant to have a cup of tea while they talk about it more calmly. Laura is all over the place. Her adored neighbour has invited her to have tea!



In the restaurant, Laura is amazed by the smells. While Adib prepares and serves tea with mint, she explains everything: that she studies in a Culinary Institute and that they will do a competition of healthy recipes. When she tells him that she has PKU, Adib listens with attention and when she finishes, he says:

“My cousin Osman also has it!”

“Really! Well, if he wants, he can join our gang!”



But Adib tells her that his cousin lives in Morocco. He says that he knows other girls and boys in his country that also have PKU, leucinosi etc. For them it is a bigger problem than it is for the children here, because they have little information and because their customs are so different. His family comes to Barcelona from time to time to go to the doctor, because in their country there are not so many specialists in the subject. Laura listens with attention and she realises how lucky she is. For Adib's family, everything is more complicated than it is for hers. For them, it is very expensive to pay for the trips and to get the special foods. Furthermore, they always have to be accompanied, because they don't speak the language. Adib helps them a lot and Laura feels a great admiration for her neighbour.



“And what does your cousin eat? In Morocco do they have Captain PKU juice?”

“What’s that? Laura, I think you’ll have to teach me a lot of stuff.”

Time has flown and now it is the hour for Adib to go back to work. Before she goes, he shows Laura the kitchen and all of the spices they use and she tells him that one day she will prepare a dish for him, from the ones she has learnt at school. She also promises to give him recipes for PKU and other disorders, like the ones that Annie, Arnau or Thomas have, so that he can send them to his cousin.

And she asks him, in turn, if he could give her some of his recipes, and she urges him to try to participate in the online competition.



“Come on! Explain!”

Amber wants to know how the first date with the neighbour went.

“It was great. He showed me the restaurant and we agreed to exchange some recipes. He has a cousin in Morocco with PKU!”

“You have him in the bag. Take advantage!”

But Laura doesn’t know what to do to get close to Adib. He’s very nice, but apart from the teas and the recipes, there’s nothing.

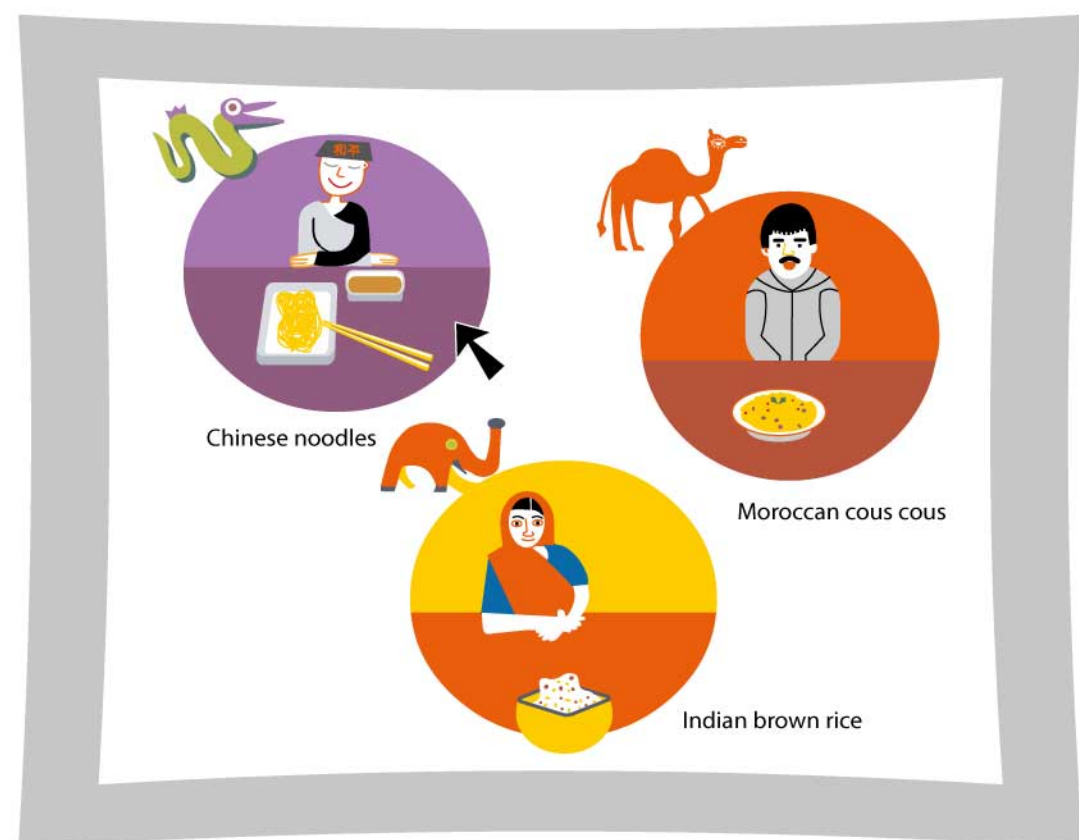
“He must be as timid as you,” says Amber. “Maybe you should take the initiative.”

“Ohh, I would die of shame.”

“Have it your own way, but at this rate, you’ll be elderly before anything happens!”



But what is going at a good rate is the course. At Thomas' birthday party all the members of the Metabolical Gang talk about the competition. Arnau has made a very cool design to upload the recipes to the web of the cooking school and Gabriel has proposed that every recipe should indicate the quantity of proteins. Annie is very excited and says that in a few years, they will set her up nicely.



"Come on Annie, tell us your secret."

"I can't, but I promise you that you will like it. Above all, Laura, though lately she has been very absent-minded."

"Maybe she has fallen in love," Amber teases.

"Hey, shut up!" Laura says, irritated.

But Laura thinks her friend is right. She wants to go further with Adib but she doesn't know how to take the first step. And what if he doesn't like her? And if he thinks she is too pushy? And if the boys from his country think differently about these matters? Finally, she calls Annie. Maybe she will agree with Amber...or maybe not.

"I think the best thing to do is to drop him a clue without committing yourself entirely."

"And just how do you do that?"





Annie is going out with a boy from her class and she explains how she got him to declare his feelings.

“Look, you bring up a theme like you don’t care. You can start by saying, for example, that Amber is in love with a guy and she doesn’t dare tell him. See what he says. Also, you could be more direct and ask him if he likes anyone.”

“Heavens! I am sure if I ask him that I will turn red!”

“If you don’t dive, you can’t cross the sea!”

After all of that, maybe her friend was right, she should take a risk. But she had to find the right moment to do it.



The moment arrives at the end of the school year. Today they will give the prize for the best recipe uploaded to the web. The jury is made up of some of the teaching staff, some students’ family members and a doctor specialized in allergies. Laura has invited Adib to the prize giving ceremony. He has also uploaded a recipe to the web. According to Laura, it looks really good and substituting mushrooms for the lamb, it is perfect for PKU and other metabolic disorders that need a diet low in natural proteins.

1ST CONTEST OF HEALTHY COOKING



Everyone is sitting in the assembly hall, the lights are turned off and they are projecting the recipes on a big screen. Some participants have even added cartoons and videos of the dishes. Laura, sitting beside Adib, takes advantage of her proximity and the dark to ask him:

“Are you...going out with anyone?”

Adib takes a few seconds to respond. He seems a little uncomfortable.

“Well, you see, the truth is I have a “friend” in Morocco.”

There is a silence. Adib hurries to explain.

“She’s my cousin and our parents want us to go out together. But I hardly ever see her..”

Laura has understood that Adib has a commitment and the only thing that she can imagine with him is a secret adventure. Suddenly all the projected images go hazy. She feels as if someone has punched her.

“I like you Laura, and I think you are beautiful.”

“I hope it all goes well with your cousin.”



Adib touches her arm, he wants to be nice to her. The only thing Laura wants to do is to run away. She doesn't even realize that she has won one of the prizes.

“Come on, man, look up, you'll get over this.”

“Furthermore, if you look hard, he's not that cute. His nose is too big.”

Annie and Amber are trying to console her. But Laura will need a few more days to swallow her disappointment. It's the first bitter pill that life has offered her.

The school year is over. Laura won a prize for a recipe of hers and her mother's and after a few days she starts feeling happy again. Arnau's parents, to celebrate the coming of the summer, have organised a banquet for their friends. All of the members of the Metabolical Gang chat excitedly as they taste the delicacies that are on the table. Gabriel talks to the adults, who listen admiringly, about his work on gene therapy.

"Hey, have you tried the tomato and fennel quiche?" Amber tastes all the dishes, guessing the ingredients in each one. She, like Laura, is quite the chef.

Thomas plays the violin for his friends and Annie, a little further away, hugs her friend Laura, who, from time to time seems a little melancholy.





"I will help you to make your dream come true."

"I don't know how you can."

"I'm not talking about going out with a boy that you like. You'll have to do that one on your own."

"So what dream are you talking about?"

Annie winks at her.

"A dream that is also mine. To open a Metabolic Restaurant! Why the heck do you think I am studying Business Administration?"

THE END



Metabolic Cookbook

Do you want to participate?

Send us your METABOLIC RECIPE, with a drawing or photograph to the address:

info@guia.metabolica.org

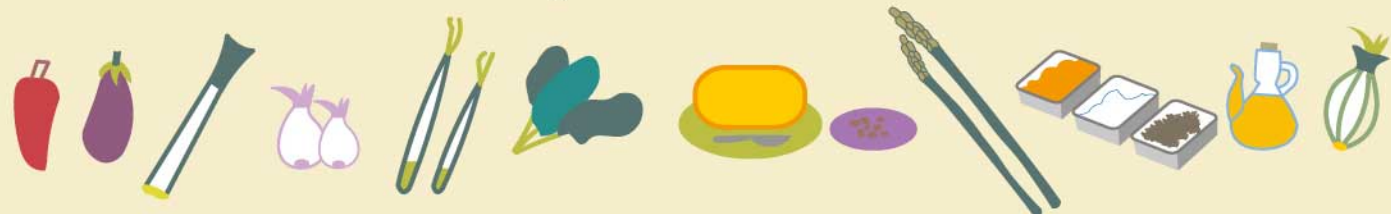


Isn't this finger licking good?



Timbal of Roasted Vegetables and Spinach

Ingredients for 4:



2 red peppers
1 aubergine
1 leek
1 spring onion

2 garlic shoots
300g tender spinach
50g butter
50g raisins

1 bunch wild asparagus
A pinch of cinnamon powder
Salt, pepper
and olive oil

Method



1 Roast the peppers and the aubergine in the oven



2 Cut the leek, the onion and the garlic shoots into small pieces. Sauté them in a pan with half the butter until they are tender. (10-12 mins.)



3 Fry the raisins in another pan with the rest of the butter and add the washed and drained spinach. Cook for 4 minutes.



4 Mix the spinach with the leek, onion and garlic shoots. Salt and pepper to taste and add a pinch of cinnamon.



5 Plate up by filling a circular mould, alternating one layer of roasted pepper strips with another of roasted aubergine strips. Top it off with the spinach mix.



6 Decorate with braised wild asparagus.



Adib, come on, invite me. This looks really good...

Potato Doughnuts

Ingredients for 4:



700g potatoes
200g sweet potato,
pumpkin or carrot
50g low protein flour

2 tablespoons of chopped
fresh parsley
1 tablespoon of chopped
oregano
100g fennel bulb

100ml milk substitute
1 teaspoon of baking powder
15ml cream 35% (for whipping)
Salt, pepper and olive oil

Method



1 In a bowl, whip the cream and add chopped fennel, salt and a little pepper. Put in the fridge.



2 Peel and grate the potatoes and sweet potatoes. Put them in a bowl and add the flour, the baking powder and the milk substitute.



3 Add the oregano and the chopped parsley, beat and mix. Season to taste.



4 Using two soup spoons, pinch balls of the dough and flatten them with the back of one of the spoons.



5 Fry in plenty of hot oil until they are golden. Let them drain on kitchen paper.



6 Serve accompanied with the cold cream and fennel sauce.





Laura, I give you the first prize!



Filled Crepe Packets

Ingredients for 4:



4 homemade low-protein crepes
(from PKU cookbook)
300g frozen forest fruits.



3 tablespoons of sugar
1 lemon
a knob of butter



Method



1 Defrost the fruits in a colander.



2 Grate the skin of half of the lemon and squeeze the other half.



3 Melt the butter in a pot on a low heat, add the forest fruits, the lemon rind, the juice and the sugar. Cook on a strong heat, stirring carefully, for 2-3 minutes.



4 Make the crepes following the special PKU recipe.



5 Divide the fruits into portions for each crepe and fill them. Close them into packets by folding the ends over the fruit. If there is any leftover fruit, take advantage of it for the presentation of the dish. Decorate as you wish.

Note: You can also fill the crepes with canned fruit (peaches, pears, pineapple etc.) cut into dice and mixed with whipped cream.



Well, well, Thomas, that was a well-kept secret!



Strawberry Cups

Ingredients for 4:



200g strawberries
100g sugar
150g cream 35% for whipping
100g low protein rice



½ l milk substitute
Rind of one lemon
1 stick of cinnamon

Method



1 Put the milk substitute in a pot with the cinnamon and lemon rind.



2 Bring to the boil, add the rice and leave it to cook on a low heat, stirring to keep it from sticking for 15 minutes.



3 Add 50g of sugar and cook for 15 minutes more, stirring until the milk has evaporated. Remove from the heat and let it cool. Whip the cream and put it in the fridge.



4 Wash the strawberries, dry them and cut them in slices. Put the rest into the blender along with the rest of the sugar and blend them into a puree.



5 Mix in the whipped cream very gently and place the mixture into 4 serving glasses.



6 Fill them with the milky rice and then decorate with the strawberry slices.



Congenital Metabolic disorders:

They are a very numerous group of 'rare' diseases caused by hereditary changes in DNA. These mutations give rise to proteins not functioning correctly and cause alterations to the metabolism because they obstruct one of its pathways. Some of these diseases, the ones which affect the metabolism of amino acids and organic acids, are treated with special diets which prevent the accumulation of toxic products that can affect the brain or other organs of the affected child. This means a treatment of diets low in foods with a high protein content (meat, fish, eggs, milk and their derivatives), which are then substituted with a special formula (Captain PKU juice in the story). The special formula contains no harmful substances, but it does have everything else that is necessary for our health.

PKU or Phenylketonuria:

A congenital disorder of the metabolism of phenylalanine, which causes the accumulation of this substance in the blood, urine and tissues, causing particular damage to the brain.

Homocystinuria: Congenital error in the metabolism of homocysteine, which causes the accumulation in plasma, urine and tissues of this substance, harming the brain, bones, eyes and the circulation of blood.

Ammonia: Proteins are formed by a very long chain of amino acids which release ammonia when they are broken down. This is a substance which is very toxic for the brain. Our organism eliminates it by converting it into urea, by way of a series of cyclical reactions, the urea cycle, which converts toxic ammonia into urea, not toxic and easily eliminated in urine.

Citrullinemia: A defect of the urine cycle which causes the accumulation of ammonia and citrulline in the blood, the urine and the brain, which it especially harms.

Aciduria glutarica: Congenital error in the metabolism of lysine, which causes the accumulation of toxic products in plasma, urine and tissues.

These toxic products are glutaric acid and its derivatives

Leucinosi or Maple Syrup Urine Disease:

A congenital error in the metabolism of some amino acids, leucine, isoleucine, and valine, which causes the accumulation of neurotoxic products in plasma, urine and tissues. These neurotoxic products smell like maple syrup, which gives the name to the disease. Leucine and one of its derivatives are the compounds that accumulate the most and are the most toxic. For this reason the disease is also known as leucinosi.

Tyrosinemia: Congenital error in the metabolism of tyrosine, which causes the accumulation of this amino acid in the plasma, urine and tissues, as well as some toxic substances, especially succinylacetone.



A Prize Recipe



Titles from the collection:

Mysterious Footprints • The Secrets of the Mulberry Bush • A Prize Recipe

Everybody is different, inside and outside.

Some are dark and have long legs; others are blonde and chubby. Some have small ears and others, eyes like saucers. That is what you can see on the outside.

But inside our bodies there are also differences.

Some people cannot eat sugar, others cannot tolerate milk or lactic products; some have allergies or can't eat animal proteins. Luckily, just like there are clothes for every body type, there are foods for every type of metabolism.

This collection will introduce you to Annie, Arnau, Gabriel, Laura and Thomas, boys and girls with their individual characteristics, but who have in common a metabolism that is..different. With them and their friends, you can discover about phenylketonuria, homocystinuria, maple syrup urine disease or citrullinemia, etc. and with them you can have mysterious, funny and exciting moments.

With the Metabolical Gang you can learn a lot about disorders and nutrition and have fun with their adventures.

