

# L'OMBRE D'APOLLON, DÉCOUVRANT LES ABUS DE CETTE PRÉTENDUE MANIÈRE DE GUÉRIR LES MALADIES PAR LA TRANSFUSION DU SANG.

By: PIERRE-MARTIN DE LA MARTINIÈRE (1667)

## A TRANSLATION BY PHIL LEAROYD

A copy of the letter 'The shadow of Apollo, discovering the abuse of this so-called way of curing diseases by blood transfusion', by Pierre-Martin de La Martinière, written in 1667, can be viewed or downloaded from:

<https://gallica.bnf.fr/ark:/12148/bpt6k132117r.r=L%27Ombre%20d%27Apollon%2C%20d%27C3%A9couvrant%20les%20abus%20de%20cette%20pr%C3%A9tendue%20mani%C3%A8re%20de%20gu%C3%A9rir%20les%20maladies%20par%20la%20transfusion%20du%20sang.?rk=21459;2>

La Martinière is described on the title page as being a 'Chemical Physician and Ordinary Operator of the King' and includes a sub-heading titled 'Ensemble - Une lettre servant de responce à la première & seconde lettre de Monsieur Denis & Gadroys' (i.e. Together - A letter serving as a response to the first and second letter from Mr Denis and Gadroys).

This letter by Pierre-Martin de La Martinière is a somewhat different type of text relating to the early experiments on blood transfusion performed in France in 1667 in that although its main content is in the form of a letter, apparently replying to a request by Martinière's friend who is only identified by the initials 'M.L.D.', it surprisingly starts with a poem titled 'Sur le zele qu'il a pour la conservation de la fante des hommes' (i.e. On the zeal he has for the preservation of the fantasy of men) followed by a lengthy description of an apparent dream experienced by the author. This dream involves Apollo (hence the title) together with other people taken from mythology that also includes vague descriptions of transfusion experiments that are performed in the dream by 'philosophers' but which can be identified to relate to actual events, in that they describe early animal transfusion experiments as well as two of Jean Denis's early blood transfusions on humans. This presentation therefore enables the author to make a number of comments regarding blood transfusion that do not have any scientific or medical basis (relating to the knowledge of the time), as they are described within the context of a dream.

Martinière then goes on to describe how he is awakened from his dream by the delivery of copies of three letters that have been sent to him from his friend. The first of these letters is identified in the text to have been written by 'Mr Denis, who teaches Philosophy in Paris, sent to Mr de Montmort, first Master of Requests, teaching a new way of curing several diseases by blood transfusion'; i.e. it is therefore believed that this letter relates to the reference:

Denis, J. (1667) Lettre escrite à Monsieur de Montmor, Conseiller du Roy en ses Conseils, et premier Maistre des Requests par J. Denis, professeur de philosophie et de mathématique touchant une nouvelle manière de guarir plusieurs maladies, par le transfusion du sang, confirmée par deux experiences faites sur des hommes. Paris: Jean Cusson.

<https://gallica.bnf.fr/ark:/12148/bpt6k326277d/f1.item>

The second letter is identified as having been written by 'Mr Lamy, Master of Arts at the University of Paris, combating the error of this transfusion, sent to Mr Moreau, Doctor of the Faculty of Paris'; i.e. it is therefore believed that this letter relates to the one Lamy wrote in the 8<sup>th</sup> July 1667 and it is therefore believed that this letter relates to the reference:

Lamy, G. (1667) Lettre écrite à M. Moreau ... par G. Lamy ... contre les prétendues utilités de la transfusion du sang pour la guérison des maladies, avec la réponse aux raisons et expériences de M. Denys. Paris.

<https://gallica.bnf.fr/ark:/12148/bpt6k1269952x.r=G.%20Lamy?rk=85837;2#>

The third letter is identified as having been written by 'Mr Gadroys, responding to Mr Lamy, for the defence of Mr Denis, sent to Mr Abbe Bourdelot, Doctor of the Faculty of Paris', i.e. it is therefore believed that this letter relates to the following reference:

Gadroys, C. (1667) Lettre escrite a Monsieur l'Abbé Bourdelot Docteur en Medecine de la Faculté de Paris, & Premier Medecin de la Reine De Suede, par C.G. pour servir de réponse au Sr Lamy, & confirmer en mesme temps la Transfusion du sang par de nouvelles experiences. [8<sup>th</sup> August 1667]

<https://gallica.bnf.fr/ark:/12148/bpt6k1268937x/f1.item>

Note: Martinière makes it clear from comments made within the text that he believes that this letter was actually written by Jean Denis and not by 'C.G.' (i.e. Claude Gadroys) though he does not explain why. It is of interest therefore that Guillaume Lamy states in his second letter (dated 26<sup>th</sup> August 1667) that he believes that 'C.G.' is actually one of Jean Denis's students. Although Martinière's letter is undated (apart from being identified to have been written in 1667), the date of this third letter identifies that it must have been written after 8<sup>th</sup> August 1667.

Martinière uses a number of statements within the 'dream sequence' part of his letter relating to the possible effects of blood transfusion, e.g. that a recipient 'could live for 10,000 years'; that it is capable of 'rejuvenating the old and decrepit' and that it results in a 'change a person's personality' and even appearance, suggesting that if someone is transfused with blood from an ox they appear to metamorphose into that animal, which the author admits are only his 'ideas' but which are obviously capable of affecting how blood transfusion is viewed at that time. He also states at the very end of the letter that the comments he has made regarding blood transfusion are only his 'feelings', though he does include quotes regarding the writings of Hypocrites and the effects of the different humors within the body to reinforce his statements. Martinière also includes the statement that since 'most diseases come from the corruption and intemperance of the blood' that bleeding is the 'quickest remedy'.

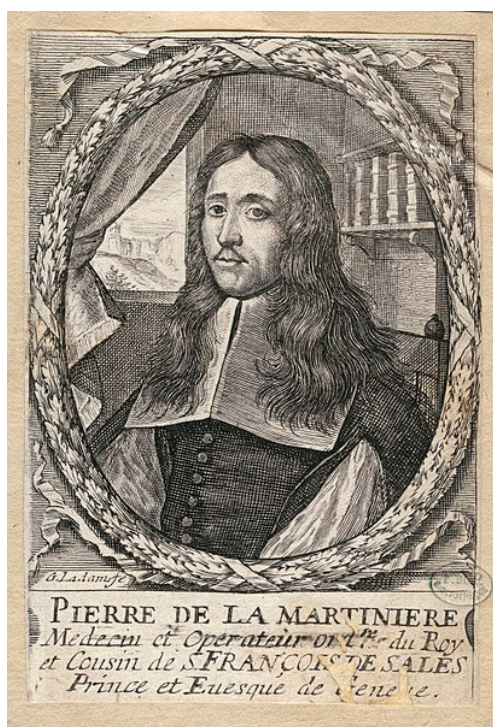
Martinière dismisses the effects of blood transfusion given by Jean Denis to the lethargic young 15-16 year old boy as being due to the fact that the boy is described as being Denis's valet he is therefore susceptible to 'his master's suggestion' that he is cured and therefore he believes that he is! He also describes the transfused healthy (un-named) man as being a pickpocket rather than a sedan-chair carrier (as identified by Denis) and states that the temporary beneficial effects of the blood transfusion given to the 'Swedish Gentleman' (i.e. Baron Bond, son of the Prime Minister of the King of Sweden) was due only to the fact that many patients 'frequently regain new vigour prior to death'.

I have translated this 16 page document from the original French into English in the hope that the content may be appreciated by a wider audience. Whilst I am obviously aware that instantaneous computer-generated translation is possible, this process struggles with specialist terminology and also produces a 'colloquial style' not always representative of the original text. The paragraph settings and the use of

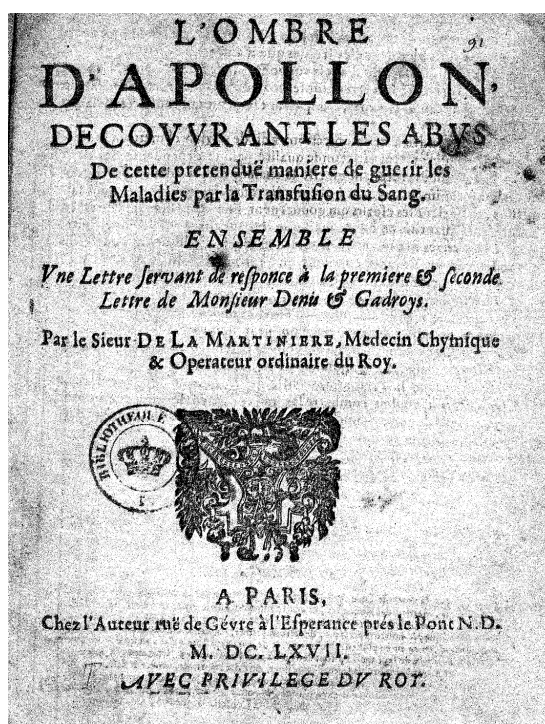
italics within the translation are reproduced from the original. Although I have taken great care not to knowingly misrepresent the author's original meaning I cannot guarantee that this work does not contain 'translational errors' and the reader is recommended to check specific details against the original French text. There is one occasion where a word in the original text is unreadable and I have identified this in the translation by [-]. In addition, there are a small number of words that I am unable to translate from the original text, which are represented as printed (i.e. in the original French) in the translation and placed within square brackets.

## PIERRE-MARTIN DE LA MARTINIÈRE

La Martinière was born in Rouen on the 14<sup>th</sup> February 1634. His father died when he was nine years old and he left his home in Lyon, where he was living at that time, in order to find his maternal grandmother. At the age of ten he met an old friend of his father, Count Henri De Harcourt who was commander of a regiment, who hired him as a surgeon assistant. He subsequently participated in a number of the campaigns during the Thirty Years' War, during which time he received both theoretical as well as practical medical / surgical instruction. He continued his medical education in Italy by working in the Ospedale degli Incurabili (Hospital for the Incurables) in Naples and the Hospital of St James for the Incurable in Rome. In 1664, La Martinière settled in Paris and became "chymical physician of the Royal Court", a title which gave him the right to practice in the capital city. There is some disagreement as to when La Martiniere died, some sources stating it was c.1676 whilst others state that it was c.1690.



Pierre-Martin de La Martiniere  
(Image credit: Wikipedia)



Title page: L'Ombre d'Apollon, découvrant les abus  
Pierre-Martin de La Martiniere  
(Image credit: gallica.bnf)

MR DE LA MARTINIÈRE  
On the zeal he has for the preservation of the fantasy of men

*Royal Operator, easy & charitable  
That France around us has an obligation to you, -  
And that your noble passion,  
Burns with true love.*

*The health of mortals produces this love for you,  
By showing the errors caused by ignorance,  
You show your Science,  
Bloom despite envy in Paris every day.*

*Do not be surprised by your Art of doing well,  
Always in your Family it was ordinary there,  
Like your Illustrious Cousin,  
This Happy Saint François de Sales,  
Healed the dirtiest souls of humans,  
You draw filth and venom from our bodies,  
And by a kindness that has no equal,  
In your charming writings,  
You show that we must as well as a marvel,  
Celebrate you on the beautiful spirits.*

*Pursue true Reieston of an Illustrious Writer,  
Your noble sentiments,  
You have been eternal until the last luster,  
In the good judgements,  
So undermines the bottom of entire ignorance,  
By your brave efforts,  
The assassins of the bodies,  
Making them see that there is only one LA MARTINIÈRE*

My mind being in perplexity and my soul in anguish, nature made in me a connection of all my senses, which made me fall into a deep sleep, being in this barrier, which forms the middle between death and life, just as if I had drunk the water from the river Lethe, the memory of the sadness which overwhelmed me was dissipated. As I was in this sweet rest, I thought I saw a beautiful woman dressed modestly, who had a very lovely face and bright eyes, who after taking off a blindfold which prevented me from seeing, having taken water from a very clear spring washed my eyes with it, as soon as I saw close to me come out of a very clear cloud a well-built young man, wearing a quiver full of arrows, holding a lyre in one hand and a bow in the other, he was accompanied by three admirably beautiful young girls, all naked, with smiling faces and winglets at their feet and hands, one held a branch of myrtle, the other a rose and the other a [cucube]. I asked this young man who he was, who answered me, I am Apollo son of Jupiter and father of Asclepius, who comes here on purpose to teach you, having heard before me the truth that you want to take off the blindfold of fear and wash your eyes from the source of constancy, so that with a penetrating eye, having contemplated what you are going to see, you can engrave it in your mind to tell it to other humans. He had no sooner uttered these words than he commanded truth to draw a curtain, which served as a door to a large very dark



cave, at the entrance of which were three hideous women, who instead of hair had their heads twisted with serpents, looking further, I saw in the middle of this cave a frightful precipice, deep and stinking, in which was a terrible great man, who was chained to a lap, several men dressed as philosophers who were on a small hill in the same cave, who were consulting among themselves what they should do to immortalize themselves, one of whom having taken an animal, made a small opening in its tail, then having taken some milk which was in a pot with a small syringe, having introduced it all through the wound, which was in the tail of this animal, seeing that the milk which he introduced came out through its nostrils and ears, after having scratched it, finding his flesh all white and his veins plain with milk, said to those who were near him, you are all witnesses of this new marvel that I have just invented, which you must point out, that those who will no longer be able to eat, will be nourished by the food that will be introduced to them through their veins, the thing is only too easy to do, experience makes it known to you, by the milk which I caused to enter through the tail of this animal into all the parts of its body, not only having watered its flesh, but also having filled all its veins, even to the point of having entered its brain. There can be no doubt that if I had taken him through life that he would not have died and that I would have nourished him in this way for ten thousand years in good and perfect health without eating or drinking, by the mere transfusion of milk that I would have put into his veins. If we practice this operation, we will do as much as nature, which cannot administer food to a fetus through its mouth, and considering that its stomach is too weak to carry out digestion, making a continual transfusion of the mother's blood into the umbilical vessel of the child, nourishing by this means all its parts, fortifying them and making them increase, teaches us that we can by adornment, do as much as it and more, it is that we will be able to rejuvenate the old and decrepit, the milk that I have made pass through the veins of this animal by my industry, shows that it is a very short path from the continual transfusion that takes place in us after our birth from food, in which there are many impurities mixed with their good juices, as long as they are purified and digested in the stomach by natural heat, and the purest potion is converted into chyle and this chyle is pushed into the veins to mingle with the blood in order to descend into the heart, to receive there its final perfection, it takes much more time than this new method of blood transfusion, which should be so called, since the milk is the purest blood of the female, it is therefore seeing the certainty that there is to insinuate in a very short time a very elaborate liquor, which immediately enters the veins, that makes me advise everyone to live for a long life, to use no other remedy than that which I have just suggested, which is to have the blood of another creature transfused into his veins. One of the company interrogates him; your elegant speech must give assurance to the following: but beforehand, I would like to do several experiments with this new operation on various animals, to see if the blood changes veins and enters the bodies of different natures, by their discordance there are no inconsistencies to be feared. The whole assembly, remaining in agreement, bled several animals of different natures, having caused the blood of a lion to enter the veins of a calf, the calf finding itself strong and furious like a lion, breaking the bonds that bind it, held by five or six of these philosophers, the blood of a donkey having been wedded in the veins of a wolf, the wolf became gentle as a donkey. This second experience strengthens them in their belief, made them conclude that there would be no doubt that blood transfusion was the secret of secrets, then that by its means, without having recourse to refreshing vials to temper the boiling blood, to hot and corroborative medicines which serve to produce a new vigour, that it was no longer necessary to seek any other remedy than to introduce cold blood into the veins of a creature whose blood is heated to refresh it, and only to give strength and vigour to languishing creatures, that it would only be necessary to push warm blood into their veins, which, not failing to melt with the cold, will restore vigour to the creature that has lost it. Another said, here are some very beautiful and assured

experiences: but as well as teaching them, I would like to see if the blood of a sick creature could not do harm to a healthy one being pushed through its veins, and if the blood of a healthy one heals a sick one. The assembly finding this proposition strong: to do so, asked them to take two dogs, one of which was weak and the other very mangy, having bled them both, the blood of the mangy was transfused into the veins of the weak and the little blood that was drawn from the weak in the veins of the scabby, which was questioned at the same time and the weakling found himself more vigorous than before, without any fistula or galls appearing to him from the blood of the gall that he had received. This experience having astonished them, led them to judge that the blood of scabies was not rotten or corrupted, but purified by the discharge of its impurities which passed through the pores of the skin, converting into galls is what should lead to the conclusion that one can confidently use the blood of mangy creatures without any fear as well as of healthy creatures, since when there was some putrefaction in it, it would purify itself being mixed with another better one. That the experiment that we had just made on these two dogs gave us to know, that the blood of mangy people being warmer than others, that being pushed into the veins of a debilitated creature was the real remedy to make it more vigorous, that in the same way the blood of debilitated creatures being refreshing, pushes in the veins of a mangy man, by bringing back to him the subtle vapour of the corrupted, serous, pituitous, salty, nitric and biting humours, refreshing and temperate this subtle and boiling blood which causes the gall healed him infallibly. In order not to obstruct anything said by another who had not yet spoken nor put his hand to the said work, I would like to experiment with the transfusion of blood on the human body; this new operation will put all the doctors in agreement, who say that the diseases come most from the corruption and intemperance of the blood, for what to remedy, some order bleeding as the quickest remedy, by which, wanting to extract corruption from the blood, diminishing vigour and strength, often causes the patient to fall into cachexia, languor, dropsy or other illnesses. That others make the sick take refreshing beverages, which to purify the blood having to pass through the stomach and intestines, as well as arriving in the veins and arteries, alterans [-] estans [*sic*] alter through these parts, often leaving unbearable weaknesses and rawness, I find that these unfortunate accidents could easily be avoided by our new operation, in which those who practice bleeding will find it there, since to introduce new blood, we have previously removed the old and corrupt. Those who oppose it because of the debility it causes to the sick will find our new operation necessary, since by its means the new blood introduced into the veins can only bring great relief. This reasoning having been carefully listened to and found to be good, a young boy was inevitably found there, as if he were dazed and all asleep, one of them said see ours to do the experiment which is proposed to us, another said, look for another subject, since this boy's drowsiness is the result of having been bled too much, which has made it worse. Another said, this is the reason why it is necessary to experience the transfusion of blood on him by which it will have recourse to his healing, by the blood that will be pushed into his veins, in which only a little remains, which having grown thick with the ardour of the fever, having arrested the evil of the necessary heat, which converts itself into spirit, which gives vigour to the muscles and to the nerves. This reasoning having been found to be correct, the median vein of this boy is opened, from which, thick blood having come out, is made to enter through the same vein blood from the carotid artery of a kid, and afterwards having bandaged his arm, raising his eyes as if coming from a deep sleep, getting up from his bed, with a laughing face said, I am cured, which strongly resounds with the assembly, which deliberates that it was still necessary to experiment with this new operation on a healthy man, they found him there by chance a pickpocket, strong and robust, who was asked if he wanted to gain a piece of silver to endure being bled, and putting in place of the blood that they would draw from him other blood; remaining in agreement, they made him sit on a bench and having drawn from the basilic vein

about a pound of blood, they pushed instead through the same vein two pounds which had been drawn from the crural artery of a lamb; seeing that it neither annoyed nor changed his countenance, after they had bandaged his arm, they asked him if he was not debilitated, he replied that on the contrary, that he felt more vigorous than before; this is what made one of the company hazard to prostitute himself in trying the experience of this operation, so that having drawn a lot of blood from the cephalic vein, they gave him some of that from the jugular artery of an ox instead, then having re-bandaged his arm, they opened him to draw more blood from him, ordering him to continue little by little to draw his blood, giving him beef instead of this, seeing that he metamorphosed into a big ox, believing that it was done on purpose I started shouting, which made the heads to these three haughty women turn, who, wanting to run after me, I withdrew towards Apollo, who having taken an arrow he gave it to the bow, he pulls to unleash it, shoots one of these three enraged, which having been done and having wounded the one in the middle, Apollo threatening the others, causing them to withdraw, which gave me time to look again at those philosophers who deplored the change in their comrade, which being Nebuchadnezzar, they began to work with all sorts of artifices to make him retain his first form. At that time, this man, terrible in a certain way, having made themselves stumble, it seems to me that everything fell, which gave me great fright. The truth that was against me, told me also not to fear Apollo, against whom I approached. Wanting to know these three young maids who were close to him, I begged him to tell me who they were, whereupon he answered me they were the Graces, one of whom is Aglaia, who is a pleasure, the other is Thalia, who receives it and the other is Euphrosyne who gives it back. I begged him to tell me what the wings meant that they had in their feet and their hands; he said to me that this shows that one must be quick to give, because grace delays, degenerates by its slowness most often into disgrace. I begged him to explain to me what it meant by what they gave up in their hands, he told me, the rose signifies that the grace one does must be done with joy. The myrtle, that grace must never wither. The [cucube], which the graces must turn in turn. I also begged him to tell me who were these three hideous women whom I had seen at the entrance to this cave, this dreadful man and those whom he had precipitated with, he answered me, the one whom the truth has wounded is boredom, the other two are ignorance and malice, and that this dreadful man is their genie, who is called the Evil Main Council favoured by Pluto, and these men who have precipitated with him are philosophers, who seek a secret to make themselves immortal, but in vain, nature teaching that all living creatures must die before attaining immortality. As I pretended to still inquire about something, a lackey came to see me, who brought me a note from his master containing these words.

Sir,

*I have sent you three copies of printed letters, begging you to have the kindness to let me know how you feel about it, hoping for this favour from you, I remain Sir, your very humble and affectionate servant and friend. M.L.D.*

The first of these printed letters was made by Mr Denis, who teaches Philosophy in Paris, sent to Mr de Montmort, first Master of Requests, teaching a new way of curing several diseases by blood transfusion.

The second, by Mr Lamy, Master of Arts at the University of Paris, combating the error of this transfusion, sent to Mr Moreau, Doctor of the Faculty of Paris.

The third, by Mr Gadroys, responding to Mr Lamy, for the defence of Mr Denis, sent to Mr Abbe Bourdelot, Doctor of the Faculty of Paris.

Desiring to satisfy the curiosity of my friend, I wrote this letter to him.

Sir,

When your lackey came to bring me the printed letters you sent me, I was asleep, and seemed to me to be reasoning with Apollo, who had told me for more than an hour about the chimerical hopes of the transfusion of blood, which is an operation invented more than three thousand years ago, although Mr Denis claims to be the originator of it, being very mistaken, as he can see in the antiquities of Montpellier, we find the Priests of Apollo, in a cellar which is still below the College, which was the temple of this false God, when they wanted to sacrifice the human victims to him, they performed operations on their living bodies as well as making them die: such as phlegbotomy, arteriotomy, blood transfusion and others. The Druids hope to find in the bodies of creatures some wonderful secret for the public good, considering that in man is contained all the perfections of all other creatures, sacrificing only human victims, the Sacrificers who were called Vaccies among themselves, before sacrificing them, performed on their living bodies all the operations they could imagine. As they were the greatest philosophers of their time, and as they only had the inclination given to the search for the highest and most hidden secrets, there can be no doubt that they did, among the other operations, that of the transfusion of blood, to see if one did not purify the other, but in vain, since the blood drawn from the body of an animal no longer lives, because its union is dissolved. Truth denied by the writings of Mr Denis, who wants, by the instruments he uses in his alleged new operation, to maintain the vivacity of the blood, by having it extracted from the veins of others, against the sentiment of Hypocrites, who says, that extravasated blood, or blood that leaves its natural place, must necessarily corrupt.

Mr Denis, wanting to explain this aphorism in his fashion, and even wanting that Hypocrites had an obligation to him said, that to save his honour, that it must be presumed to be true that the blood is corrupted, when it is found out of the vessels. Which preserves its heat, which gives it a natural movement, and which maintains the freedom of its circulation, by which it is continually purified, citing this example, that a blood drawn in a dish must change its constitution by coagulating, a because of the air he assumed, what remained in him at the tip of his pen.

In his first letter seventh article says, that some individual having wanted to attack the opinion he wanted to bring to light on the transfusion of blood, saying first, that the diversity of complexions which is founded on blood, supposes that there is so much diversity in the blood of different animals, which makes it impossible for one to produce venom and poison towards the other. Secondly, that extravagant blood leaving its natural place must absolutely be corrupted. Thirdly, that a blood issuing from its vessels, having to pass through inanimate conduits such as the pipes he uses in his transfusion, must coagulate infallibly, and that being coagulated descending into the heart, that there causes a palpitation, which must soon be followed by death. To which he would have replied, that although it should not be said that there are as many different qualities and complexions in the blood, as there are individuals in each species, that it should not be inferred from this that the blood of one was venom and poison with respect to the other, no more than the various meats on which we feed, which make the elixir of our life, instead of poisoning us, because of their different qualities. That just as it is said that cooling meats and medicines serve to temper the boiling blood, that the hot ones excite a new vigour in that which stagnates and coagulates in the veins of a weakened person, either by illness or old age, that through transfusion, hot blood overcomes cold, can only give it the vigour it lacks, and that a cold blood pushes through a warm one then it does not cool it, a coarse one that it does not soften by the transfusion of a subtle one, a subtle one fixing itself and thickening having received a thickness, just as the hard wine softens, the cloudy clears, the fat is defatted, the weak becomes vigorous and the waste is corrected by the mixture of certain liquors, as he says, in his first letter, and in his second that he made under the name of Gadroys, wanting to take back on



the truth that Mr Lamy declares, who says that the wine should not be softened by the mixture of a little sweet, the clear by a little disorder, the weak not becoming vigorous by a little strong, the fat not losing its quality by the want of a little of that which is opposed to it and that the waste cannot be affected by that which is good; but by the mixture of certain liquors. That in the same way, a coarse blood cannot be subtilized by a little subtle, a subtle to be fixed by a thicker, a hot to be tempered by a cold and a cold to be heightened by a hot but by means of remedies and alternative refreshing and purgative remedies and medications, which restore the blood to a laudable temperature when it lacks it.

He accuses Mr Lamy of levity, saying that he denies what he does not know and that anyone other than him knows that by mixing wines from different regions one corrects the wines, adjusting the tastes.

I am greatly surprised that he did not say in his first letter what he says in his second, he must not have read the latest police regulations, which prohibit the inn keepers from doing mixtures other than wines, knowing that previously they use certain liquors which he does not know, being a secret of inn keepers, just as that which the master vinegar makers keep between them by oath to make good vinegar, if he has this secret of subtilizing, thickening, degreasing, softening, making vigorous and maintaining the wines in their goodness, I advise him to go to Auvergne where the wines are not kept, to Gascony, Rouergue, Languedoc and part of the Dauphine where the wines are very hard, in Germany along the Rhine where all the wines have a taste of terror, around Caen in Normandy and in the country of Mayne where the wines have little strength; and in the country of Anjou where they are almost all white, he will gain more by teaching the transfusion of wine than the transfusion of blood in Paris.

Do you know where is the spirit of those who have even a little knowledge, to amuse themselves with this alleged new operation of blood transfusion; mustn't they know that it has been so exercised, when Hypocrites says, that an extravagant blood is corrupted by extraneous itself, not meaning a blood that falls into a dish as Mr Denis explains: but of a blood which is extracted or which is caused to be extracted from the veins of others, if he did not explain it, it is for fear that some scholars would try it to the detriment of the afflicted, and if it was removed from his works as well as his anatomy, it is out of charity, that because of the compassion that many also had to see a creature die in their presence, this is what compelled them to conclude, that since by the void of the pores the air corrupted the humors, that by the same void the nature of creatures could attract what was beneficial to it, that as leprosy produced celestial influences or a malignant and morbid humor, which by its hot and dry intemperance changed the whole shape of the body, that for the surest remedy it was necessary to use a bath made of the blood of newborn animals, and that as each thing grows impatient with its fellow, that the blood of children was more salutary for man than that of other animals, this is what obliged several princes afflicted with leprosy to have a number of innocent people slaughtered for to bathe in their blood, in order by this means to have recourse to their healing.

Mr Denis may not have had the authors of these impieties in his hands; this is why, claiming to do some great charity, he wants to put into use his alleged new operation, on which Mr Lamy, making fun of with just reason, said that would be a very advantageous invention, if one could afford such amenities as great as Mr Denis imagines. How happy our century would be to have found such an easy and prompt means for us to free ourselves from the evils that disturb our rest and that prevent us from tasting the sweetness of this life. Mr Lamy is very wrong to want to make fun of a philosopher, whose greatness of mind only admits things of the last achievement, this is noticeable in his modest speech, when he says, that there should be no doubt that the transfusion of a sweet and praiseworthy blood cannot escape some and prolong the life of others; which should make this operation some use and great advantage in erysipelas, pox, leprosy, pleurisies, cancers, ulcers, rabies, madness

and other diseases resulting from the malignancy of the blood, from which he expects the successes in the experiments which will be able to be done in a short time, for as he says in his second letter, knowing what it is permissible to conjecture afterwards, wanting to say it, that by transfusion all these diseases will be cured infallibly, I believe that when Mr Denis wrote this while his mind was preoccupied with something else; for like a true philosopher ignorant of nothing, he knows that there are six kinds of pleurisy, one of which is caused by an abundance of blood, the others, by bile, by pituitary, by melancholy, by ventosity, which things warming and boiling of blood in its vessels, causes it to pour out on the pleura or into the intercostal muscles, where it occurs after an inflammation, which is fomented by the abundance of blood and by the heat, which causes cannot be eradicated by transfusion, as Mr Lamy so aptly puts it: but by bleeding and refreshing and corroborative beverages, which will be found in my books entitled *Empirical, and Charitable Naturalist, Ingenious Operator, Abridgement of Operations of the main* and other medicine books that I have written.

Leprosy coming either from the divine curse, as we could see in the thirteenth and fourteenth chapters of Leviticus, or from a hot and dry weather, which produces a malignant, impure and morbid humor, which corrupts the whole blood mass, causing a universal canker, pox being a species of leprosy, I find that for their cure, transfusion is unnecessary, and I dare say, that this operation would cause more harm than profit in the cure of these diseases; for if one pretends by his means to cure this leprosy which bears the divine curse, the wrath of God will be increased upon the sick, because of the consent he gives to receive in his foreign blood, which is only not worthy to enter his intestines to be turned into excrement, Moses having commanded in his laws to throw it away as an immodest thing, which is observed between Jews and Mohammedans. If one claims to cure by its means those caused by hot weather which corrupts the whole blood mass, the foreign blood, however good and praiseworthy it may be, will be corrupted as soon as it is mixed with the impure and contagious blood, which is so malignant that it infects and corrupts the blood of a healthy man, by the vapours it receives from the perspiration of the body of one infected with leprosy, for which to cure all other infections of such diseases, one must have recourse to the remedies that I teach in my *Treatise on Venereal Disease, Abridged Wonders of Nature, History of the Effects of Venoms* and other books that I have composed. For the madness whose seat is in the brain, caused by the melancholic humor which heats up the spirits more than their naturalness, I find that for its cure the transfusion can only be contrary to it, since the blood which is the invigorating nectar of nature, must be warm to maintain this igneous heat which maintains our life, and consequently the madness being caused by a supernatural heat which increases the melancholia, if by the transfusion one still pushes blood into the veins of the patient, this will not fail to increase his illness. For its cure, bloodletting, the refreshing remedies, purgatives, emmenagogues and diet are the sure remedies.

Mr Denis should not claim by transfusion to cure cancers, ulcers and erysipelas: diseases which, although caused by melancholic, bilious and heated blood, are only like young mischievous people who meet in some afflicted parts, corrupting the blood that discharges them, and not the whole mass of blood. I believe, as Mr Lamy has very well remarked, that a commendable blood, coming by transfusion to arrive in these infected parts, will not corrupt itself infallibly, although he wants to prove the contrary, saying in his first letter, that not doubting that the strength and goodness of the meats and beverages that we take are capable of correcting the intemperance of the blood and making it better, but that having to make several detours before the substance of the food reaches the heart by some stomach discomfort, absence or obstruction in the parts of the mesentery which sieve the purest potion of the chyle, where the most precious things deteriorate there so much as to mix with the blood, that by transfusion the blood which is pushed into the veins being free from all these

inconveniences, therefore mixing in the veins of the one who receives it, circulating with the other blood, that it can only bring good nourishment to the principal parts, which are only altered in illness and old age by the vice and defect of the blood which moistens them. This reasoning is very good, but it would be much better if he had cured this Swedish gentleman, who died of a stomach flow, not having been able to retread it by transfusion: ah how they would have laughed at those four doctors who had abandoned him. But in good faith, does Mr Denis believe he has found people of such poor judgment, that to believe that Doctors of Medicine with a hepatic flow, turned into enteric, and subsequently into diarrhoea, would have ordered for the cure of this disease several bleeding from feet and arms; it is to treat them as ignorant, in unspoken words, knowing that all stomach fluxes cool the liver, which is the great cook of nature, and which makes the blood, that if one bleeds the one who is afflicted by it, it is to kill him, as Heurnius says.

By the way, it is against the opinion of Mr Denis to say that the liver makes blood, certifying in his first letter that there is blood in animals as long as the liver is formed. It reminds me of a certain philosopher of the house of Escures, who wanted me to believe that in nature the generation of animals is formed from the seed of three male pellets, from one of which formed the brain or was governed by the spirits, the other the heart, to purify the chyle to convert it into blood and the other the liver, to maintain the blood and distribute it to the parts that need it, opinion contrary to anatomical science, which makes us know that a seed makes a creature, and that as many seeds as there are in the womb of a creature, as many creatures are formed, and as the veins slowly take their source from the liver, Mr Denis wants it to be from the heart.

Let us return to this Swedish gentleman, after having seen the first letter from Mr Denis, I do not know how his transfusion did not save him; he was wrong about a dead being, because if he had lived, Mr Denis would have received from it the greatest glory that he never received from it, and this would have been the cause that he would have been placed among the demigods in the medals of this century, as Hypocrites was in the time of the great King Artaxerxes. As the old Francois proverb says, you should not throw the handle after the axe. Mr Denis in his second letter, makes it clear that this foreign gentleman received by blood transfusion all that he could hope for; for having lost speech, knowledge and being in a lethargic drowsiness, accompanied by convulsions of limbs, having been thrust into his veins two pallets of calf's blood, instantly his [polux] flared up and became more vigorous, his convulsions ceased, staring fixedly at those who were near him, and after having given all possible marks of perfect knowledge, responding to those who spoke to him, and that afterwards he fell asleep in a rather sweet and tranquil sleep; that having gathered together three quarters of an hour later, that he took all that was given to him, such as herbal teas, broths and jelly, without vomiting them up, letting nothing go by the bottom, as he did before: but that after having remained twenty-four hours in this state, these forces began to decay and his intestines to empty themselves with the last weakness, having been given the transfusion again as on the day before, that he still took some vigour before he died.

Through this story Mr Denis wants us to believe that it was through his transfusion that this gentleman lost his lethargic drowsiness, his convulsions, and that he has regained his vigour, we can clearly see that he has hardly seen any sick people. If he had practiced medicine for a short time, experience would have taught him that all patients before entering into agony, suffer from some annoying accidents, and that as a result, nature wanting to fight the disease, makes the patient regain new vigour; which makes those who see him hope that he will stay in convalescence, but in vain, death ensues soon after.

The cure that he quotes in his first letter, of this young boy of fifteen or sixteen years old, who having been tormented for more than two months by an obstinate and violent fever, for which to go away he would have bled twenty times to appease its

ardour, and that there was only a little thick blood left, which caused him a heaviness of body and mind, continual drowsiness and loss of memory; that after having given him by the transfusion three times as much arterial blood from a lamb as was drawn from him, cured him on the same day, having reduced his appetite, memory, his ordinary agility, which he had lost through his illness, caused him to lose his continual drowsiness, as well as the costal ache he had from having fallen the day before from the top of a ten-foot ladder. If this cure were a truth, there can be no doubt that he would also have asked this foreign gentleman whom he quotes in his second letter, who only needed good blood in his veins for his cure, the fever provoking only a foreign heat, caused by his belly flow, which, as learned Ferrier says, however small it may be, always weakens the body, and when it comes abundantly, it undermines nature so much that the forces of the patient cannot equal the force of the disease.

If this gentleman had more strength than the greatness of his illness, he would have survived. According to the opinion of the most learned naturalists, strength is generated by the vigour of the blood, which Benivenius and Jean de Saint Amant, calling the treasury of the health and the seat of the soul.

The death of this foreign gentleman leads us to judge that the healing of this fifteen-year-old boy is not real. I apologize to Mr Denis and to those who are interested in it, not saying this to shock them: but knowing that this boy is his valet, he will allow me to continue, that when it pleases me I will tell my servant that our cat having a broken leg, that I cured him perfectly in two hours, anyone will want to believe it.

Mr Lamy is wrong to want the transfusion to be useless for all illnesses, I believe that it would be good for cachexia, which results from a haemorrhoidal flow, or menstrual, or dysenteric, or by frequent bleeding, or haemorrhage of the blood, either through the nose or through some wound, if the blood drawn from a creature did not lose its living quality: but as experience teaches me that blood drawn from a dead animal, not being able to reanimate, and that dead things never come to life, makes me conjecture that if a cachexia had received bad blood, that it would not fail to increase his bad habit of the body and cause his death. I am wrong in this encounter, to cite this disease to want to oblige Mr Denis, almost wanting to say, that his new operation can cure cachexia, knowing that this disease, in addition to it coming from, is from a haemorrhoidal, menstrual flow, dysenteric, hepatic or dyadic; as also by a haemorrhage of blood, either from the nose or from some wound, or retention of some natural purgation, or of cirrh in the spleen or liver, or of some viscera or obstruction in the entrails, caused by some acrid humor or some [corairectiques] medicines taken by mouth, that the transfusion cannot cure, as is seen in this foreign gentleman, who is dead, notwithstanding the repetition of the transfusion that was given to him.

If his intestines had not been gangrenous, if his solid parts had not been corrupted, and if Mr Denis had been advised sooner to perform the transfusion on this gentleman, he would certainly not have died. Mr Denis must have good eyes to have seen through the belly and pancreas, the gangrenous guts of this gentleman; Argus never had such a clairvoyant eye.

To show that there is nothing but the truth, making a detail of the opening of the body of this gentleman said, that we found his intestine, ileum, entered into itself from top to bottom, his intestines all fluid and gangrenous and with an unbearable stench, his pancreas extraordinarily hard, accompanied by obstructions, which did not allow pancreatic juice to flow into the intestines, his skin being of a mapped shape, four fingers thick, his liver very large and fluid in some places, his heart dry and quite bruised; and that having discovered the vein through which the transfusion had been made, hardly any blood was found there, any more than in the other veins, nor even in the ventricles of the heart. Because, he said, the little that had been given there had been entirely imbibed in the flesh, wishing to make us believe that this

gentleman has lived since the hour that he was sent for, only by the blood which he had received by the transfusion.

If this blood that he put in the veins of this gentleman made him live, why didn't he make him angry? Calves are not lacking in France; there is no need to go to England to obtain their blood.

He is entertained by my faith, wanting us to learn new old ones. What was it that there were men so devoid of spirit, than to go and ask one of the twelve persons who were at the opening of the body of this strange gentleman, if what he said is true or not, I don't believe it, since there is no one, however little he has studied medicine, that does not know very well, that any flux, either from the imbecility of the belly, or of the other parts which serve for the concoction, or by some defluxion, or by the corruption of the food, which continues, causing obstruction to the meseraic veins, causing vapors to rise from the intestines to the spleen which is the seat of melancholy, thickens it more than its naturalness.

As for the liver, those who eat a lot, it is naturally very large and hot, either naturally or by debauchery, it is fluid and mottled in various places. As for the heart, there are some that are very red and others which have with it an obscure reddening, as if it were burnt; not being so for that, never lacking water in its ventricles to refresh itself by the mother artery, which like a good steward, attracting the most subtle humors, continually moistens this main fire of life, which rules the heart, which as the last dying, always finds itself after the death of the creature, moistened with a subtle blood, which finds itself wrapped in its gibbous part, being discharged there from all the parts of the body, as if to save it. It is not contradicting experience to say that it served in this gentleman who died of [d'onguent miton mitaine]. If I followed his will, believing that the transfusion made him live longer than he should, that would be instilling a heresy in my mind, which would make me pass for a heretic. O that I did not care, knowing only too well that this operation is only chimerical, being fit only to torment the minds of the healthy, and the bodies of the sick.

Mr Denis, on the contrary, having taken it into his head that it is the epitome of all remedies; he claims that it will be good for curing all illnesses. Of death, which is the most common disease, we must not speak of it, since by it he could not recover this gentleman who died; the flow of the stomach all the same, since that did not prevent it from emptying itself until the last breath, if it is of no use for the flow of the stomach, for the operations, all the same, since the stomach has been found to be extraordinarily hard until after death, and for fever likewise, since it has always accompanied it. But by the way, as this fever was putrid, caused by all the humors which had been corrupted, as much by the malignity of the disease as by the great evacuations of the blood which one would have made by the bleedings, in the place of which the veins were filled with serosity, mixed with other infected humors, which had spoiled the whole complexion of the body of this gentleman; just like a barrel where there has been vinegar, can only spoil the good wine that has been put in it; likewise the body of this gentleman, being all corrupt, could not do otherwise than putrefy the good blood that was pushed into him, this is why he could not escape: but as all the other fevers are not putrid, they can be cured by transfusion, that is not incredible; although Mr Lamy wants to prove the contrariety, saying that fever ordinarily upsets all the humors which meet in the body, causing the minds to find themselves embarrassed and exhausted in the mass of these humors, not being able to easily extricate themselves from it, that from it proceed the lethargies which one notices in febricians, for what remedy, that the purgations are used as hands to unwind these spirits and give them freedom, he would not have since he wrote this teaching in the second letter of Mr Denis, which we learn, that by the speed of the arterial blood of an animal, which is pushed into the vein of man, going directly to the heart, taking its place, frees the spirits at the same time, which purgations cannot do. I would believe that, were it not that I do not believe that a foreign blood can extinguish a malignant heat, which is the origin of all fevers, which immediately

attacks the heart; which heat comes from foreign and impure moods, for which to correct, I believe as well as Mr Lamy, that it is necessary to look for other ways than the transfusion.

Why must I not follow the opinions of a philosopher giving my approval to the sentiments of a Master of Arts, who believes that all illnesses generally proceed, either from the abundance of the blood, or from its impurity, and that all are hot, having none cold: I cannot bear it. If Mr Lamy had not put that in his letter, I believe that Mr Denis would not have looked for materials to write a second one. Blaming Mr Lamy in this encounter, I would say that there should be no doubt, as Mr Denis has very well remarked that there are diseases caused by the blood diet, as well as cold and enduring causes, very large quantities, like several catarrhs, of fluxions, stomach aches, colic, intemperance, etc., which I can say with truth that they cannot be cured by transfusion, but by warm and corroborative remedies.

To plainitudinal illnesses, transfusion may perhaps bring some relief, expected as Mr Denis said in his first letter, to introduce new blood into the veins by his new operation which removes the old and corrupt beforehand. If blood sins in quality, it also sins in quantity, experience makes us aware of this every day, contrary to the opinions of those doctors quoted by Mr Denis in his second letter, who say that blood never sins in quality but in quantity, that's what makes me agree with Mr Lamy that it's a ridiculous thing to propose transfusion as the cure for such illnesses, enough to remove what's too much in the veins without giving another.

It is useless to say that whatever a man has a sore head, inflamed face and very plain veins and other signs of plainness, has more blood than he needs, this tightness of veins, rubicundity of the face and rest pains most often pronouncing an extraordinary heat, which, having heated the blood by agitating it in its vessels, causes all these effects, which are often cured without bleeding, but by simple refreshing remedies, that just like boiling water in a cauldron that is on the fire, spreading in the ashes that one prevents it from spreading by taking away a little of the heat and putting back as much of it as cold, that in the same way, having removed the hot blood which is in the veins there by transfusing fresh in its place, that it will have the same effect on plainitudinal diseases, that cold water does in boiling water, it is talk like those philosophers who want to make people believe that white is black. If Mr Denis had been ill, I believe from his second letter that he would have fallen into a phrenesis, that to believe that the transfusion cures the diseases which we call plainitudinal, just as they are cured by refreshing remedies, he would have practiced medicine, he would know that these refreshing remedies which are used in such illnesses are also purgative, to evacuate the humors, and that such purgations being accompanied by diet that the patient observes, dissipating the spirits, has the same effects as bleeding, which cannot be done by transfusion.

Mr Denis, persisting in his error, wants in his second letter, as well as in his first, that the blood of a healthy animal, growing in the veins of a patient, corrects and quenches the heat which causes the disease, it is a feeling contrary to the common opinion which is, that the spirits being in the blood, being increased there, the blood becomes warmer, consequently a blood pushed into other heated blood, can only increase the heat that causes illness, which is cured by many refreshing beverages that are often made to go to the patient, which beverages, because of their liquidity, stop very little in the ventricle where they lose their rawness, flowing incessantly into the heart, before arriving there, making many circulations and detours around, there is like a continual gentle rain, which perishes little by little, extinguishing this foreign heat which causes illness, makes the patient recover the health he has lost.

As for all the illnesses that I have ever proposed for which I find that the transfusion is good, being an extraordinary operation, it may possibly be beneficial in the cure of rabies, which is a disease caused by a black phlegm, mixed with melancholy, which rotting it, increasing the foreign heat, infects the whole blood mass, in such a way that many want this disease to be incurable, being mistaken,



since there are many who have been cured of it, some by common remedies, and others by extraordinary ways; like those who were left it in the sea after having plunged into it, others in the rapidity of flowing water, into which they were thrown, and others at the Key of Saint Pierre, or of Saint Hubert, with which they were marked.

Although the venom of rabies is so powerful, that by a small particle of blood poisoning communicated to the blood, it infects it, all this does not prevent that it does not take much to cure the disease it causes, a fear and a pain being its counter-poison and venom, this is why by the transfusion it will be able to heal; but while waiting for enraged people to present themselves to serve as an object, I believe that Mr Denis will have the leisure to take mathematics lessons.

The Tritheme religious Benedictine Abbot, who lived about four hundred years ago, having by transfusion caused the blood of healthy animals to enter the veins of sick animals, by means of certain drinkable vesicles, wishing to do the same to men, claiming to be the universal remedy for all diseases, he was blasé for it by another philosopher of his time; which having made him acquire a bad reputation, he did not write any more. Mr Denis must do the same so as not to lose the honour he has acquired among the learned of this century, since his alleged new operation only comes up against a bloodbath, it will only be to the detriment of the human race. For whatever his opinion is that the blood of animals is better than any other, some barbarous and inhuman philosopher will come after him, who, teaching that the blood of the same nature sympathizes better than foreign bloods, will cause human blood to be used to the healing of human diseases, and of animal blood to animals of the same species. The fear of this operation joined to the repugnance that one will also have, of allowing foreign blood to enter one's veins, will give rise again to the bath of human blood, which is a remedy for the ultimate inhumanity, which arouses the wrath of God. This is what convenience has allowed me to tell you of my feelings, on the little that I have examined of the letters you have sent me; expecting some other novelty from you to give me a subject for writing; I remain,

Sir,

Your very humble and obedient servant,

De la Martiniere