Legal Liability of Medical Analysis Laboratory Managers due to Laboratory Errors

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I. Introduction

The significance of laboratories in the medical area has been currently rising and their presence in daily life has also been expanding in parallel thereto. Although medical laboratories are identified as supporting elements for physicians, in other words for diagnostic and therapeutic applications, it is observed that they also have an existence independent from diagnostic and therapeutic activities. Individuals may request medical tests for themselves, for their relatives or employees in situations where no diagnostic or therapeutic activity follows. These tests may be practiced due to personal curiosity or for resolving administrational or organizational policies or in order to diagnose an illness or to decide on a therapeutic method. In any case, it is safe to assume that nowadays medical laboratories function together with or independent from diagnostic or therapeutic process.

The growing significance of medical laboratories increasingly places them into public eye and public interest. In particular, the awareness and development in this regard is understandable considering the possible consequences of an erroneous test result. The consequences to be dealt with as a result of an erroneously conducted and incorrectly reported result of a doping, drug or pregnancy test may be noteworthy. An example of such a situation is the very recent declaration of the Turkish Doping

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Control Center regarding the erroneous test results on the analysis of athletes which caused a vast stir among the sports community¹. Similarly, the erroneous results of the drug testing of the employees held by companies in the United States led to termination of employment contracts and transfer of the dispute to courts².

Besides, even the simplest test may have immense effects on human life, health and relations in daily life. Furthermore, when the tests are determinative in the diagnosis or selection of a certain therapeutic method, the consequences may expand to undesired levels³.

- 2 In the events that took place in the US, the employer requested a drug testing on the employee and ensured that such a test was to be conducted in a laboratory that they had an agreement with. The test result showed that the employee had taken drugs upon which the company terminated the employees contract. Afterwards the laboratory management realized that the testing was erroneous and in fact the employee had not taken drugs. Company paid the related compensation and re-employed the employee. However the employee later initiated a court action against the laboratory manager and claimed compensation of moral damages due to emotional distressand disrepute. The court decided that the contractual relationship was formed between the laboratory management and the company and therefore the employee was not in a position to claim requests based on a contract that he/she was not a party of. However the court concluded that in such a probability, the laboratory manager could be held responsible for the extra-contractual damages that his/her customer confronted in the framework of predictable risk and that the laboratory manager should take the necessary precautions in order to prevent his/her customer to confront any damages. See David W. Lockard, "Protecting medical laboratories from tort liability for drug testing", Journal of Legal Medicine (<u>http://dx.doi.org/10.1080/01947649609511015</u>, 29.11.2011).
- ³ A growing tendency throughout the world is to support diagnosis of diseases with laboratory testing. In particular it is observed that physicians, in order to prevent any criticisms and accusations they may face after medical treatments or interventions, prefer to have supporting evidences for their interventions and the most convenient way to do so happens to be through laboratory testing. See **Paşa Göktaş**, *"Laboratuvar Testleri*

¹ Diana Taurasi, an athlete of Fenerbahçe Sports Club who is considered as one of the most successful female basketball players in the world, was subjected to a doping test in the aforementioned Center and upon receiving positive results on doping Fenerbahçe terminated the contract with Taurasi. Later it was proven that the player was not doping. However the erroneous test result led to termination of the athlete's contract, loss of an important player in the team and also elimination of the team from Euroleague. For a specific study on this incident, Kısmet Erkiner, "Diana Taurasi Olayından Ders Çıkarmak", <u>http://www.sporhukuku.org/dosyalar/Diana-Taurasi.pdf</u>, September 8, 2011.

In all these situations, the liability of the management of the laboratory which provides the erroneous results due to laboratory errors becomes an essential matter. It is obligatory to activate this liability in order to provide compensation for the damages caused. Therefore, the basis and limitations of this liability should primarily be established because, as it is apparent from the examples above, the compensation of the damages may reach unmanageable degrees. Moreover testing results may carry unexpected consequences.

In the present study, the basis for the liability arising from damages caused by incorrect testing due to laboratory errors will be evaluated.

II. Legal Relationship between Laboratory Manager and Patient

Laboratory manager performs the medical analysis on account of his/her contractual relationship with the addressee⁴. Said contract can be considered to have been formed upon patient's request for the analysis (offer) and laboratory manager's acceptance to perform the analysis (acceptance)⁵. Manager may conclude the contract with the individual who applies for an analysis, in writing, orally or sometimes merely

⁵ Article 292 of Code of Civil Procedure reads "*Everyone* should endure collection of blood or tissue from one's body **for the determination of paternity** on the condition that it is obligatory for the dispute to be resolve and is in conformity with scientific data and additionally, does not pose any health risk. Where this obligation is not complied with despite the absence of valid grounds, the judge will decide on the performance of the examination **by force**. A third party may not avoid this obligation by claiming the right for refusal to testify."

According to the above mentioned provision, a relationship is formed by the judge's decision rather than by means of the free will of the individual. It may be accepted that the judge's decision replaces the will of the individual. Therefore it should be acknowledged that albeit it is the judge's decision, a contract is nevertheless established between the individual and the laboratory manager and that the provisions of said contract should be applied in the dispute. However the fact that the sample shall be taken by force if the individual does not willingly submit a sample despite the Courts ruling decision, is a new concept in Turkish law.

Fazla mi İsteniyor?", http://www.saglicaklakal.com/KoseYazisi.asp?i; 22.09.2011.

⁴ In case medical analysis is conducted on an unconscious person who is seriously injured e.g. in a traffic accident, this may constitute a "relationship of acting without authority".

through other conduct indicating assent by actions such as performance of his/her obligation by conducting the analysis and submitting the resulting report.

At first sight this type of contract may be regarded as a "*contract for work*" due to the fact that the obligations of the laboratory manager consists of various transactions, which are subject to differ as per the circumstances, such as collection of the sample from the individual, performance of the necessary testing to the sample, preparation of the report and even in some cases, evaluation of the result⁶.

The party of the contract who undertakes the transaction is usually the *laboratory manager*. Although there may be various employees in the laboratory who perform the necessary transactions, the contract is nevertheless formed with the managee of the establishment⁷.

The laboratory manager may be a legal entity as well as a natural person. However it must be emphasized that where the laboratory establishment is a part of public corporate entity, for example a state hospital, public university or any other public institution, the relationship between the parties shall not be considered as a private law relationship but a public law relationship⁸. Under such possibility, the addressee of the relationship will be the related public corporate entity and, in principle public law provisions shall apply to said relationship.

In this context, although the contract regarding medical analysis is established usually with the laboratory manager, in some instances, it is also possible to obtain said service directly from the laboratory manager without any contract whatsoever. In some circumstances, particularly

⁶ See **Haluk Tandoğan**, *Borçlar Hukuku Özel Borç İlişkileri*, Volume I/1, Sixth edition, Ankara, 1985, p. 4., for explanations on the classification of work contracts.

⁷ In such probability, said employees will be considered merely as assistants in performance.

⁸ It is worth mentioning the Institution of Forensic Medicine established under a special law. Due to the fact that this Institution performs medical analysis, the subject matter of this article also covers the transactions conducted in said institution in various aspects. However this coverage concerns the quality of the work performed and excludes those aspects that are subject to administrative law as this study is on private law.

where not the patient but the physician selects the laboratory manager, and in cases where the analysis is performed in the laboratory which was selected by the physician, in fact no separate contractual relationship is formed between the laboratory manager and the patient due to the fact that the patient refers only to the physician thereby establishing a contract with said physician. Laboratory activities come up as a part of this particular contractual relationship (contract of medical practice or contract of medical intervention). In other words, the laboratory manager in a sense functions as the assistance in performance of the physician in which case the contract established with the physician also covers the laboratory services. On the other hand, a separate contract between the laboratory manager and the physician for performing the tests exists however the sample provider does not become a party to such contract. This contract is in a sense a contract to which the physician is a party, for the benefit of a third party (patient).

The addressee of the performing party of the contract is generally the *person who requests an analysis*. Said person may be referred to as "*customer*", "*patient*" or "*service requirer*". Since in this context the matter is handled in terms of medical laboratories, it is herein preferred to name this individual as "*patient*". However in some cases, not only patients suffering from an illness but also healthy people who wish to satisfy a curiosity may become a party to the contract. In this sense the concept of "patient" is considered as a general term rather than a technical term, which involves any person who feels a need for an analysis and makes a request thereof.

Accordingly, the party to the contract is usually the patient, although this may not always be so. In certain cases, even though the medical analysis relates to a patient, the contract may be formed with another person. For instance, where the sample is collected from the patient in a different place and delivered to the laboratory, the contract is established with the person who sends the sample. An example to such a situation is the circumstances where a physician himself/herself collects the blood sample of the patient for therapy and he/she sends it to the laboratory with which he/she has a agreement with. Again, the circumstance where an employer sends the samples of his/her employees to a certain laboratory constitutes a similar situation.

It is also possible to reach at the same conclusion even when the sample is collected by the laboratory manager and not outside. For instance in cases where the employer sends his/her employee to a certain laboratory so that a sample may be collected, the contract is established between the employer and the laboratory manager. Even though collection of a certain sample from an individual's body constitutes an invasion to his/her absolute right which is strictly linked to the personality of the involved party, since the person involved will have personal consent to the test, this will not be an obstacle against his/her absolute right being subject to the contract. Particularly, for instance in cases where the owner of the workplace undertakes the costs of the analysis, this should be accepted as not only a contract for costs but also a contract of analysis which also involves the costs between said owner and the laboratory manager. Besides, this acceptance is a consequence of the intent of the parties because especially the intent of the laboratory manager for establishing a contract is addressed to the employer. Thus, it should be accepted that the laboratory manager commits not to the patient but to the employer for performing the testing and in particular reporting the outcome.

It is important to determine between whom the contractual relationship is formed because demands based on contract, as a rule, may only be claimed by the contracting parties those between whom the contract is formed. For instance in cases where not the patient but the physician selects the laboratory manager and the actions are performed in the framework of the contract established with the physician, as the patient forms a contract with the physician, the latter has direct responsibility regarding the analysis performed in the laboratory due to the fact that according to Turkish law, a party to the contract is held directly responsible for the actions of the persons who are utilized and benefited in the course of the execution of the contract (previous Article 100 and new Article 116 of Turkish Code of Obligations). In such possibility, the laboratory manager can only be held responsible on reliance based liability or tort liability as long as the necessary conditions exist. In this context, when a patient checks in a private hospital, the contract is established with the private hospital management and in the framework of said contract, the addressee is not the laboratory manager himself/herself but the hospital manager. Here, in case of laboratory errors, the patient may communicate his/her claims based on contractual relationship to the hospital manager. On the other hand, claims against laboratory employees may only be asserted based on tort liability (old Article 41, et seq. and new Article 49 of Turkish Code of Obligations, et seq.).

On the other hand even when the contract is not established with the physician, an erroneous analysis will obviously have an effect on the intervention of the physician and his/her outcome in said intervention. However in cases where the physician is not the one who selects the laboratory management, any liability of the physician for the erroneous acts of the laboratory, i.e. the action of the laboratory employee is out of question. These two parties are held liable for their own actions separately with regard to their own areas of intervention.

The obligation of the patient concerning the contract is generally the payment of costs. Payment of costs constitutes the remuneration for the work performed therefore the cost, as such, is not an action which defines the nature of the contract. It is the counter obligation, i.e. act of work or service that mostly defines the nature of the contract.

Two types of contracts are regulated in Turkish law regarding the act of work, namely "*the contract for work*" or "*mandate contract*". Before defining one of these types of contracts as preferential, below assessments on the contract of medical analysis formed with the laboratory manager should be taken into consideration:

The contract of medical analysis, cannot be considered to involve an intervention applied to human, for instance a therapy. Rather than an intervention to the whole of a human organism, examination of a sample collected from human and preparation of the requested report as a result of said examination, i.e. providing information is exist.

- In this context, the laboratory manager does not undertake a definitely positive result. Apart from that, the laboratory manager undertakes not only the examination but also a scientific evaluation of the result of the examination, i.e. reaching and submitting a result no matter the content.
- Although a result is achieved through the acts conducted and \geq the work carried out, in order to conclude that the concept of "work" is present, a new creation should be formed or an already existing form of work should be modified therefore this outcome cannot alone be considered as a "resulted work" in the context of the subject of the "contract of work". In this context, what is accepted as creation of a work is the introduction of a part to a certain whole, repairing or changing the shape of an existing form of work, etc. As a result, the crucial point in the concept of work is the fact that the result achieved may be accepted as a separate legal entity which is different from the previous one⁹. However as a result of a medical analysis act, neither a new work is created nor any modification on the present work is made. Medical analysis merely aims at detection of the present situation.

In our opinion, due to the above aspects that the act of analysis of a sample entails, said acts regarding the contracts of medical analysis should be subject to mandate contracts rather than contracts of work. On the other hand it must be stated that the assessment on the nature of the contract can only be made by considering and bearing in mind the relationship between the parties and especially the mutual acts in every individual case¹⁰.

⁹ Necip Bilge, Borçlar Hukuku, Özel Borç Münasebetleri, Sevinç Matbaası, Ankara 1971, p. 246; Haluk Tandoğan, "İstisna Akdi Kavramı, Unsurları ve Benzeri Akitlerden Ayırtedilmesi", İmran Öktem'e Armağan, Ankara Üniversitesi Hukuk Fakültesi Yayınları, Ankara 1970, pp. 311-332, in particular p. 320.

¹⁰ The most important difference between these two contracts is that in "contract of

III. Main Obligations Arising from the Relationship between Contracting Parties

The content of the contract established between the parties is the primary determinant source for the obligations of the parties therefore obligations are identified by evaluation and interpretation of the contract in the concrete situation.

We shall herein state a generalization of main obligations arising from contracts of medical analysis.

The main obligation of the patient is the remuneration of the cost of work performed¹¹. In addition, certain obligations arising from secondary acts may exist, such as compliance with the instructions of the person in charge of performing the test, providing factual information and acting attentively before, during and after the test.

In return, the main obligation of the laboratory manager is to perform the necessary analysis and report the results thereof. In addition, other obligations may arise based on the content of the existing contract. Accordingly although changes may occur depending on the characteristics of every individual situation, the obligations of the laboratory manager may be listed as follows:

work", the contractor is responsible for the actualization of the result as well as the defects in the result whereas in "mandate contract", the mandatory is responsible for the careful undertaking of the work but not for the result and defect. Likewise, it is possible to terminate the contract in contract for work, however it is not so in mandate contract See. **Zekeriya Kurşat**, "*Eser ve Vekalet Sözleşmelerinin Nitelendirilmesi Sorunu ve Nitelendirimenin Hükmü*", İstanbul Üniversitesi Hukuk Fakültesi Mecmuası, C. LXVII, S. 1-2, pp. 143.

¹¹ It is indeed possible that the work is conducted for gratis. The work must be acknowledged as gratis if it is so decided in the contract or the circumstances lead so. However, the laboratory manager may request payment based on the practice in this regard even though payment of remuneration is not explicitly stated in the contract (Article 386, paragraph 3 of Code of Obligations, Article 502, paragraph 3 of the New Code of Obligations).

- Collecting sample from the individual.
- Examination of the sample.
- Reporting the results of examination.
- Interpretation of the result.

The laboratory manager should demonstrate all care required in his/her profession. For instance, he/she should duly be aware whether the sample subject, is ready for this action in terms of food intake, hunger, exercise, smoking, alcohol intake, drug intake, high fever, age, sex or pregnancy, etc. thus ascertaining that the sample reflecting the real situation can be collected.

The laboratory manager should consider different issues depending on the type of the sample and should handle the sample with necessary care. For example, he/she should see to it that the tourniquet applied to the arm during blood collection does not stay longer than a certain time period. Similarly, he/she should pay due care to matters such as selection of vein or body part or collection of urine in the right timing.

Determination as to whether due care was shown for such matters is the subject of the field of medical science and as such should be evaluated by relevant specialists within the framework of professional requirements.

Results caused by inadequate care cause liability of the laboratory manager. For example, if the parameters in blood are affected due to keeping of tourniquet in the arm for too long causing identification of incorrect blood values, unwanted consequences may occur. In particular, it is a high probability that incorrect test results influence the therapy method to be chosen by the physician. In such a probability, the error in the preferred therapy and the harm that this causes may bring forth the liabilities of the laboratory manager under discussion. This issue will be examined below in detail. The laboratory employee's task is not limited to the collection of the sample. Naturally in cases where the patient brings his/her sample or the sample is delivered to the laboratory the liability of the laboratory manager emerges as of the stage that follows the collection of the sample. However even in this case, the laboratory manager is responsible for recollection of sample or is expected to recommend and inform the patient accordingly if any need or especially, if any suspicion arises. Should the patient nevertheless reject submission of a new sample, the liability of the laboratory manager ceases for that stage.

The liabilities of the laboratory manager at this stage consist of subjecting the samples to the necessary tests in a timely manner, correct execution of tests and taking due care for preserving a sterile environment. In addition, if additionally required or if the circumstances necessitate, the resulting test should be interpreted correctly in the framework of his/ her professional knowledge. Otherwise it is possible that he/she may be held responsible for the damages caused by incorrect assessment.

IV. The Concept of Laboratory Errors

There are two important aspects of the process of medical analysis in order to consider that the laboratory manager has performed the act or task properly:

 \rightarrow Providing the analysis results in a timely manner

→ Providing reliable or correct analysis results.

Acts in contradicting these two aspects may be considered as "*laboratory errors*". In this regard, laboratory errors pertain to matters which may be laid at a person and which prevent the analysis to provide the true results.

Although the delay in providing the analysis does not as such mean that the analysis is erroneous, the delay itself may hinder the benefit expected from an analysis. Therefore it is possible to consider the liability of the laboratory manager for compensating damages resulting from delays. This is why the concept of *"laboratory errors"* as used here includes both delays and erroneous results.

Laboratory errors may occur in various forms which differ in each individual case depending on the type of the analysis, type of the sample and personal condition of the patient.

The equipment utilized during collection of samples or execution of tests, the laboratory environment, manner of working, deficiency in personal skills or know-how or the methods used may lead to laboratory errors.

An erroneous analysis result may be caused by incorrect evaluation of the result as well as incorrect selection of samples, ill preparations or incorrect application of tests. In this regard it is crucial that a result achieved through utilization of various equipments is evaluated with the necessary know-how in compliance with scientific criteria and professional standards. Should the values obtained be incorrectly interpreted due to lack of knowledge; the resulting report that may come up incorrectly must be considered as a laboratory error.

V. The Legal Effect of Laboratory Errors: Liability

In private law, "*liability*" usually means to constitute the remuneration of the debt of "*compensation*". Accordingly "*liability*" is closely linked to the concept of "*damage*". In this regard liability is a concept that is referred to in order to acquire the compensation for damages suffered by a certain person¹².

Damage, on the other hand, may occur when a person is subject to a material or moral infringement against his/her existence; moreover it may occur as a loss or damage against assets and even as a matter of economic activities¹³.

¹² For details, see **Haluk Tandoğan**, **Haluk Tandoğan**, *Türk Mesuliyet Hukuku*, Ankara 1961, pp. 3-5.

¹³ For evaluations and explanations on the concept of defect, see Mehmet Serkan Ergüne, Olumsuz Zarar, Beta Yayınları, İstanbul 2008, p. 7 et seq.

In the light of these, the liability for the laboratory manager may come up due to damages incurred by the contracting party or the owner of the sample that was subjected to analysis, moreover liability may rise with regard to any person who justifiably trusted the information established by the laboratory manager due to its credibility, the details of which will be explained below. The concepts of damage and liability as mentioned herein are linked to the analysis performed. Accordingly, other types of damages, for instance damages that occur due to an accident in the laboratory are not in the scope of. Similarly, the subject of this article is the compensation liability of the laboratory manager. Therefore, the matters of disciplinary or criminal liabilities of laboratory managers in the framework of their professional obligations are excluded from the extent of our study.

As mentioned above, the subject of the present article comprises the damages that occur in relation to the analysis performed by the laboratory manager. It is necessary to underline at this point that in general the test result as such does not cause damage. Damage is only caused when a certain decision is made on the basis of the test result and said result is used for a particular aim. For instance, damage caused by an action due to the test result may be referred to in situations where a physician applies an erroneous therapy in accordance with the test result, an employer terminates a labor contract due to a test result, an individual commits suicide due to a test result that reveals a fatal disease or an individual kills his daughter, wrongly presuming that she was pregnant due to a test result.

When evaluating the condition of causal connection in terms of liability it must especially be taken into consideration that the test result as such does not cause the damage but the addition of a further action does. As a result, causal connection should be established between the action taken upon the test result and the test result itself and in addition to this, the same kind of connection should be established between the damage occurred and the test result.

When determining the causal connection between the erroneous test result and the damage, due care must be given whether other interfering conducts disrupt the connection. It is crucial at this point to keep in mind that in Turkish law, causal connection should feature an *"appropriate causal connection"*. Hence only those conducts and damages that may provide a logical connection in the natural order of daily events will be taken into consideration instead of all kinds of conducts and damages resulting there from which form a logical connection with the test result¹⁴.

In this regard, it should be determined in each individual case whether conducts in instances such as committing suicide, killing one's daughter, terminating a labor contract, amputation of an arm due to selection of an erroneous therapy method are conducts that may be considered as the natural consequence of the test result. Again instances such as an individual's depression due to facing low blood sugar levels in the test result, using related medication and therapy methods incurring expenses in this regard or committing suicide, should be evaluated in the light of various different factors in each individual case.

VI. Legal Basis for Liability

Liability in general terms may arise from contract as well as from extra contractual legal causes such as tort. The principal issue that should be determined for resolving damage liability is whether there is a contractual relationship and hence whether the demand relies on the contract because there exists a difference in terms of the provisions applied between contractual and tort liability. This matter shall be dealt with in detail below.

A. Contractual Basis

In case a contract is present between the parties, as a rule, the demand for resolving damage should rely on said contract. In such a case, the party who fails to perform his/her obligations fully or as required should as a rule compensate for all losses incurred by the other party as

¹⁴ Cf. Tandoğan, Mesuliyet Hukuku, p. 76 et seq.

a result of such failure (Article 96 of Code of Obligations et seq., Article 112 of New Turkish Code of Obligations, et seq.)¹⁵.

It is necessary to determine whether the demand might be relied upon the provisions of the contract even if the individual subject to the test is not a party to the contract. In a concrete case, if "contract for benefit of third person" or "protective effect of the contract on third party" are present, then it is also possible that they too can rely upon the provisions of the contract. For example, when an employer delivers the sample he/she obtains to the laboratory manager, a contract is formed between these two parties. In accordance with the circumstances of an individual case, it may be deduced that the contract was made for the benefit of a third party¹⁶. This could be the case especially when the test is performed for the personal benefit of the person who is subjected to the test or for any reason other than those related to the workplace. However if the test is being performed solely for the benefit of the employer, then this might constitute a case of "protective effect of the contract on third party" rather than a contract for benefit of third person¹⁷. Even though the contract is formed with the employer, the laboratory manager is well aware of the fact that the sample which he/she subjects to a test belongs to another individual. In this case, the obligation of the laboratory manager for showing due care in order not to cause any harm to the owner of the sample is applicable. Besides, not only the contract party but also the mentioned third person will be able to assert the claims based on the contract.

¹⁵ The liabilities of the parties may differ in relation to the content of the contract. In actual cases, the laboratory manager may undertake only the task of performing the test or he/she may additionally undertake collection of the sample, performing the tests and interpreting the tests.

¹⁶ For details on the concept of contract for the benefit of third person, see Şener Akyol, *Tam Üçüncü Şahıs Yararına Sözleşme*, Vedat Kitapçılık, İstanbul 2008, p. 21 et seq.

¹⁷ Cf. Nil Karabağ-Bulut, Üçüncü Kişiyi Koruyucu Etkili Sözleşme, XII Levha, İstanbul 2009, p. 26 et seq.

B. Tort Basis

In certain cases, even when there is no contractual relationship, compensation for the damage caused may nevertheless be demanded. The existence of the liability for compensation of the damage even when there is no contractual relationship is based on the fact that there are *"general codes of conduct"* binding every member of the society and that the individual concerned in fact violates said codes. This type of liability is referred to as "tort liability" under Turkish law¹⁸.

General codes of conduct are rules that give subjective rights to individuals rather than rules that identify behavioral patterns for individuals. In this regard it is a general code of conduct to comply with absolute rights that individuals possess such as personal rights or in rem rights. Any violation thereto may constitute tort¹⁹.

The laboratory manager either collects sample from an individual and then performs the testing on said sample or performs test on a sample that has been directly submitted to him/her. In this aspect he/she may be considered to intervene with the physical integrity of an individual and to arrive at a conclusion with regard to one's health. The physical integrity and health of an individual is a part of his/her personality. Therefore any unlawful intervention against the personal element in this regard may constitute tort.

However, reporting of a test result which is the fundamental act of a laboratory manager or in other words acts of determining or informing may not always be suitable to arrive at such a conclusion. If the laboratory manager or an employee causes personal injury to an individual during collection of sample, this might certainly be regarded as an unlawful intervention against the physical integrity which is classified as an absolute right and accordingly, a determination on tort might be easily reached. However the aspect of the laboratory worker that is taken into consideration in the present context is not damages caused in event of personal

¹⁸ Tandoğan, Mesuliyet Hukuku, p. 11 et seq.; Oğuzman/Öz, p. 483 et seq.; Selim Kaneti, Haksız Fiilde Hukuka Aykırılık Sorunu, Kazancı Yayınları, İstanbul 2007, p. 1 et seq.

¹⁹ Cf. **Tandoğan**, *Mesuliyet Hukuku*, p. 17 et seq.

injury during intervention but rather the damages caused by an erroneous report. Thus it is very unlikely that the report or the information established directly constitutes a tortious act. This can only be concluded if and when the information listed in the report as such can be regarded as an attack on personal rights. The determinations of an individual's drug addiction or doping usage may be examples of a violation since such a determination might harm an individual's reputation and honor which may lead to the compensation based on tort. However in our view erroneous determination of blood sugar level, for instance, shall not alone be sufficient to constitute tort. As a result, it is necessary to conduct a separate evaluation of each concrete case for determining whether liability based on tort should be considered in addition to contractual liability.

C. Trust-Based Liability

Thus far it has theoretically been established that the laboratory manager's liability may be based on contract or tort. On the other hand according to certain theories in development which restrict the practice scope of the tort liability, it is almost impossible to accept that in terms of the present subject matter, any practical use of the tort basis alone exists since the reporting action of the laboratory manager, which may be considered as his/her fundamental act and which can be identified as informational activity, has distinctiveness in terms of this subject matter. The said informational activity should also be characterized as possessing the nature of creating liability for the laboratory manager without the need of any tort basis²⁰.

The possible source of liability in the present context is defined as *"liability based on informational activity"*, a theory with the foundation of trust liability. According to this notion, even when individuals do not directly have contractual relationship, they may nevertheless be obliged to compensate for the damages to third parties on the basis of obligational relation because of the information they rendered. In order for this

²⁰ Cf. **Ergüne**, p. 111 et seq.

to happen, it is necessary to "*establish trust in a specific level by providing information*" and that the "*third parties trust this information*"²¹.

Accordingly it is acknowledged that an obligational relation is formed between these individuals independent from performance of obligations and the parties have a liability to protect each other in accordance with the good faith principle. In particular, it is acknowledged that the professional position of the information provider shall create a special relation of trust and in this regard it is acknowledged that self-employed professionals, auditors, tax advisers, banks and various specialists create a special trust in terms of the information they provide in accordance with their professional deeds²².

According to our opinion, laboratory managers, too, should be considered as persons that create special trust due to the information they establish and provide in accordance with their profession. Said special trust is not directed to specific people but to anyone who may have the possibility to use the information. Therefore those who suffer damage due to said information may claim compensation against the laboratory manager on the basis of breach of obligation instead of tort provisions even if no obligational or contractual relation is present between the third persons and the laboratory manager²³. As a result of this, for example an employer who employs someone who attaches in the job application a report confirming absence of drug addiction or contagious or any other

²¹ Çiğdem Kırca, Bilgi Vermeden Dolayı Üçüncü Kişiye Karşı Sorumluluk, Banka ve Ticaret Hukuk Araştırma Enstitüsü, Ankara 2004, p. 187 et seq.; Damla Gürpınar, Sözleşme Dışı Yanlış Tavsiyede Bulunma, Öğüt veya Bilgi Vermeden Doğan Hukuki Sorumluluk, Güncel Yayınevi, İzmir 2006, p. 235 et seq.

²² Kırca, p. 191-193 cf. Ergüne, p. 108 et seq.

²³ It is worth underlining that although in situations where there is no direct contractual relationship with the laboratory manager, the provisions of breach of liability will find an area of practice, it will not be possible to talk about the differentiation between "positive damage" and "negative damage" regarding the compensation to be claimed due to lack of basic acts. The damage that may be claimed here is the damage which would not have occurred if correct information had been provided. In the same direction, see Kırca, p. 204. In the same matter, on the application of the concept of "damage of trust" and the assessment of negative damage in liability relationships independent from primary act liability, see Ergüne, 108 et seq.

serious disease, may initiate a court action for compensation against the laboratory manager directly in the framework of trust-based liability in case information in said report turns out to be incorrect²⁴. Similarly if an organizer of a running race/marathon does not enter into a direct contractual relationship with the laboratory manager and relies on the report provided that determines a racer healthy and free from doping, it will be possible for the organizer to direct his/her compensation claims resulting from damages caused by an erroneous report to the laboratory manager.

The characteristic of a compensation claim based on trust-based liability is that in general terms, provisions of breach of and noncompliance with contract shall be applied instead of rules of tort²⁵ in that regard it will be possible for the claimant to benefit from more advantageous provisions on matters such as statute of limitations, burden of proof on misconduct and liability of associates. Besides, it will be sufficient to solely have trust damage and not as for tort liability to be applied an obligation for a burden of proof of violation of an absolute right for gaining compensation opportunity.

D. Multiple Competing Causes of Liability

It is hereby established that for liability, more than one legal reason may rise. Accordingly it will be possible for an individual who suffered damages due to laboratory errors, to choose between contractual based and tort based liability in terms of compensation of damages if he/she is also a party to a contractual relationship with the laboratory manager.

In this way, the idea of "*competing of legal causes*" which means that the individual can choose the legal cause he/she wishes, is generally ac-

²⁴ For the reliance-based liability to become necessary, there should be an absence of contractual relationship or contractual negotiation relationship between the parties. Where there is contractual relationship, it is possible to rely on the contract directly and where there are negotiations for contract, it is possible to rely on "*culpa in contrahendo*" liability. Cf. **Burcu (Kalkan) Oğuztürk**, *Güven Sorumluluğu*, Vedat, Kitapçılık, İstanbul 2008, p. 251 et seq.

²⁵ Cf. Kırca, p. 135 et seq., 206; Ergüne, 115 et seq.

knowledged and found its legal basis in the new Turkish Code of Obligations.

According to Article 60 of the new Turkish Code of Obligations, "Where the liability of one person can be based on more than one cause, the judge will decide on the basis of the cause that provides the best compensation opportunity to the sufferer unless the contrary is requested by the sufferer or anticipated by law^{"26}.

There are many advantages of preferring the contractual basis. For instance, whereas the sufferer carries the burden of proof of the willful or negligent misconduct of the offender in the tort, the burden of proof is established vice versa regarding breach of contractual obligation (Article 112 of Turkish Code of Obligations, Article 50, paragraph 1 of Turkish Code of Obligations). The statutes of limitations are different with regard to each liability form. On the other hand, whereas it is possible to introduce certain exclusion of liability provisions beforehand in the contract context in order to avoid contractual liability, such possibility does not exist case of a tortious liability (Articles 115 and 116 of Turkish Code of Obligations). Again, liability of associates is subject to different provisions in each liability form (Article 116 of Turkish Code of Obligations)²⁷.

However it can be summarized that in essence two advantages stand out: "*statute of limitations*" and "*burden of proof of the misconduct*".

One of the advantages of the claimant to assert his/her claims on contract basis is the statute of limitations. The limitation period of a contractual liability begins when the obligation becomes due i.e. time of performance and it usually consists of a longer time period than the statute of limitations of tort liability. We have characterized "laboratory analysis" as "*mandate contract*" above. Therefore in case of a contractual claim, the limitation period shall be 5 years as per Article 147/ 5 of Turkish Code

²⁶ On the other hand, for an opinion on the necessity of other liability bases not having an area of practice in order to resort to this basis for reliance-based liability, see Kalkan-Oğuztürk, pp. 265, 268.

²⁷ In general terms, see Tandoğan, Mesuliyet Hukuku, p. 532 et seq.

of Obligations. On the other hand, in case of a tort, the related period shall be 2 years. In this case the commencement date shall be the date on which the injured party became aware of the loss or damage and of the identity of the liable person (Article 72, paragraph 1 of Turkish Code of Obligations) but in any event 10 years after the date on which the loss or damage was caused (Article 72, paragraph 1 of Code of Obligations). However if the tortious act for damages is derived from an offence for which criminal law envisages a longer time period for statute of limitations, than that longer period of criminal law also applies to the tort claim of civil law (Article 72 paragraph 2, subparagraph c of new Turkish Code of Obligations)²⁸.

The burden of proof of culpability, which can be regarded as the second advantage of contractual liability, will be detailed below.

VII. Conditions of Liability

The person who requests compensation in both bases of liability (contractual or tortious) bears the burden of proof of "*an illegal act or an act in breach of a obligation causing damage*", "*damage*" and "*the appropriate causal connection between the damage and the act*". In case there is trust base, the matters of "*causing an unjustified trust*", "*justified trust*" and "*oc-currence of damage in consequence thereof*" must be proved²⁹.

The consent of the individual who will be subject to an analysis carries great importance in terms of determining the possible breach of law. The intervention performed consists of collecting sample and according to circumstances, disclosure of the privacy of the individual and maybe considered as an intervention against the physical integrity and personal right. Therefore for the intervention to be conducted lawfully the most significant condition is the consent of the individual. This point is explicitly stated in the Medical Laboratory Regulations. The related Article 35, paragraph 2 of the Regulation reads:

²⁸ On the application of the statute of limitation period of 10 years for cases of reliancebased liability, see Kırca, p. 211. In addition, cf. Gürpınar, p. 234.

²⁹ Cf. Kalkan-Oğuztürk, p. 268.

"Excluding epidemic situations or life-threatening emergency situations, samples cannot be collected from a patient and analysis cannot be performed in a laboratory without the application/consent of the patient himself who has the competence to choose and, is capable of judgement according to Article 70 of Law No. 1219 or in pediatric patients, without the consent of their legal representative"³⁰.

Accordingly, as explicitly stated in the provision, as a rule, it is conditional for the performance of a testing to obtain the consent of the patient himself or his legal representative. In other words, the testing shall be legitimized only in these terms. However under specific circumstances it has been stated that in cases where consent is lacking the testing can still be considered lawful. In particular epidemic situations and life-threatening emergency situations are excluded from the consent condition. According to our opinion, this provision should be considered together with Article 24, paragraph 2 of the Turkish Civil Code and it should be acknowledged that in addition to consent, illegality cannot be of question in situations such as "overriding private or public interest". These two situations are excluded from the consent condition.

It should be emphasized that where there is contractual relationship, *offer* or *acceptance* that leads to the formation of the contract also means consent for the test. The wording in the related article of the Regulation giving the same function to "*application*" as "*consent*" should be evaluated on this regard.

³⁰ This provision of the Regulation may be criticized for the legal terms it involves. Firstly, it is puzzling as to why, despite its relatively new date, the terms of the Civil Law have not been preferred for the concept of "*capability of judgement*" (which is used as "*ayırt etme gücü*" in Article 13 of Civil Law, whereas it is used as "*ayırt etme kabiliyeti*" in said Regulation), and as to why an incomprehensible and unneeded concept of "*capability to choose*" has been used. In addition, it is very unfortunate for consistency of legal terms that the concept of "*pediatric*" (*çocuk*) was used instead of the term and concept of "*minor*" (*küçük*) (Articles 12, 13, 14, 16 and 404 of Civil Law). The provision involves further discrepancies in addition to terms, namely whereas the first part of the article seeks and finds sufficient merely the capability of judgement in compliance with general principles, in the following part it moves to a more limited approach and seeks the consent of the legal representatives of minors in general thus excluding the cases where a minor is capable of judgement.

Another common condition irrespective of the source that the liability based upon is the negligence of the laboratory manager. In other words, in order for the laboratory managers liability to compensate rise, it is required that he/she has caused the laboratory error in his/her own fault.

Under Turkish Law tortious is based on "fault" (fault liability) (Article 49 of the Turkish Code of Obligations et seq.). Under this type of liability, the tortfeasor's negligence is required. As for the existence of negligence, the degree or severity is not significant for being liable. The significance lies in the fact that the related person may be held faulty even in case of a slight negligence. The severity degree of the negligence shall be taken into consideration not only in the existence of the liability but also in determining the extent of the compensation (Article 51, paragraph 1 of Turkish Code of Obligations)³¹.

The liability of tort is acknowledged as strict liability under Turkish law although in essence it is a fault liability. In certain circumstances, a person may be held liable even when he/she is not at fault provided that it is explicitly regulated by law.

According to our opinion, in terms of laboratory managers, basically not strict liability but fault liability is at stake due to the analysis activity that they conduct³². The liability that is examined herein results from the concrete tests that may be erroneous but not damages that may be caused by the management of a laboratory. Therefore in terms of the scope of our study, risk liability in accordance with Article 71 of the new Turkish Code of Obligations may not be applied. However depending on the evaluation of the specific circumstances in a concrete case, "*equity liability*" (Article 54 of Law of Obligations, Article 65 of new Law of Obliga-

³¹ In this matter, see Haluk Nami Nomer, Haksız Fiil Sorumluluğunda Maddi Tazminatın Belirlenmesi, Beta, İstanbul 1996, p. 69 et seq.

³² The same holds true for contractual liability. Aside from the liability for the damages caused by the actions of the assistant in performance (Article 100 of Law of Obligations, Article 116 of the New Law of Obligations), it is conditional for the laboratory manager to be at fault in order to be liable for the compensation. The culpability shall be determined as to whether due care was given in compliance with professional criteria.

tions) or "liability of *employers*" (Article 55 of Law of Obligations, Article 66 of new Law of Obligations) may be applied. In both cases, the laboratory manager may be held liable even in the absence of fault. In particular, taking into consideration that the tests are generally performed by the employees instead of the manager himself/herself, it is safe to assume that "*liability of employers*" may frequently arise. In such possibilities, the lack of culpability of the laboratory manager will not discharge him/her from liability unless in accordance with Article 66, paragraphs 2 and 3 of the new Turkish Code of Obligations, he proves that he took all due care regarding the working conditions of the laboratory workplace and the recruitment, instruction and supervision of employees to avoid a loss or damage of this type.

A similar arrangement also exists for contractual basis. In accordance with Article 116 of the new Turkish Code of Obligations, even though a person who himself/herself is not at fault, if he/she delegates the performance of a contractual obligation to associates (assistants of performance) he/she will be held liable for the damage caused³³. Moreover, since management of a laboratory is a profession and a service which requires specialization and may only be executed by the permission of the related law and authorities, any agreements of the parties on excluding liability for the actions of assistants will not be valid in accordance with the New Turkish Code of Obligations (Article 116, paragraph 3 of New Turkish Code of Obligations).

In the case of performance of the testing via assistants, it must be kept in mind that even if a contractual relationship exists, said contractual relationship is not formed with the assistants or employees and the laboratory manager remains to be the contracting party. Therefore any claims based on the contract will be only directed to the laboratory manager. A direct claim against an employee will only be possible within the framework of provisions regarding tortious liability provided that the related conditions exist.

³³ On the possible application of this provision by analogy to the reliance-based liability, see **Kırca**, p. 209.

Although in all bases of liabilities, the condition of "*culpability*" is present, differences are seen in terms of proving the defect. The greatest difference between the liability sources lies on the matter of burden of proof and consequently, the greatest advantage of the contractual liability is evident at this very point of proving fault. In a case of contractual liability, the defendant carries the burden of proof whereas in a case of tort liability it is the claimant who carries the burden of proof of the fault of the person who does the act (Article 96 of Code of Obligations, Article 112 and Article 50, paragraph 1 of the New Turkish Code of Obligations)³⁴.

Once again, another difference between the tortious and contractual based liabilities concerning defects is that in contractual liability the parties may execute a "*an exclusion of liability clause-contract*" according to Article 115 of the New Turkish Code of Obligations whereas such a possibility does not exist in tort basis in which the parties can only agree on extinction of a claim after the right to compensation occurs and this would not be regarded as an "*exclusion of liability contract*" but rather an, "*extinction by agreement*" (Article 132 of the New Law of Obligations)³⁵.

VIII. The Extent of Compensation

In the case of tort liability, the extent of compensation of the damage includes the expenses incurred, loss of profit, compensation for any total or partial inability to work and other economic losses, egany loss of future earnings (cf. Article 46 of Code of Obligations, Article 54 of the New Turkish Code of Obligations). On the other hand, in the case of contractual liability, the extent of compensation is determined in terms of whether the contract has retrospective effect in general, in the framework of the differentiation between "*positive damage and negative*

³⁴ Also in the reliance-based liability, the provisions on breach of obligation will be applied for the burden of proof of defect (Kırca, p. 211). Accordingly, the laboratory manager who created unjustified trust with the information he/she provided and violated the obligation of protection should prove his/her lack of fault.

³⁵ Prior consent is a matter that overcomes breach of law however it cannot be interpreted as consent to exclusion of liability from the damages caused by defect.

damage"³⁶. However, it should also be kept in mind that when entered into a contract with the laboratory manager it is very unlikely that a negative damage due to laboratory error is formed because in order for an error to be considered as a laboratory error, the act should be performed. In other words, it is necessary that the performance was carried out but not in the required and agreed manner. That is to say, there is "defective performance". In the case of defective performance, apart from special regulations regarding defect, there is no possibility for terminating the contract but only compensation can be requested³⁷. Therefore in the case of a compensation claim on contractual basis, the important criterion for determination of the damage is the criterion of "damage that would not have occurred if the laboratory test had been correct". In this regard, the costs incurred (actual damage) and loss of profit may be requested. For instance a person whose employment contract was terminated or who was not offered a job because of the erroneous laboratory test, should be able to claim the loss of profit that results there from. This opportunity will be especially significant for the person over whom somebody else was preferred in a job application because of this reason. Similarly a person who was subjected to an incorrect therapy due to erroneous test results and therefore lost an organ or a limb, for instance an arm, may claim the compensation of all therapeutic costs, loss of labor and other economic losses³⁸.

It should be stated that moral damages may be claimed in addition to material damages in both tort based and contractual based compensa-

- ³⁶ Positive damage is the performance interest, negative damage is the reliance interest on the validity of the contract. In other words, the damage which would not have occurred if the contract had been valid or in effect, will be negative damage whereas the damage which would not have occured if the contract had been properly performed, will be positive damage. For details on the matter, see **Ergüne**, p. 55 et seq.
- ³⁷ M. Kemal Oğuzman, M. Turgut Öz, M. Kemal Oğuzman, M. Turgut Öz, Borçlar Hukuku Genel Hükümler, Vedat Kitapçılık, İstanbul 2009, pp. 320-321.
- ³⁸ Obviously, the degree of contribution of the laboratory error on the therapeutical preference of the physician will play an important role in reducing of the compensation (Articles 43 and 44 of Code of Obligations, Article 51 and 52 of the New Turkish Code of Obligations). Indeed, in cases where the laboratory error has no impact on the damaging results of events, there will be no appropriate causal connection and hence no liability for the laboratory manager.

tion claims (Articles 47 and 49 of Code of Obligations (Articles 56 and 58 of the New Turkish Code of Obligations); Article 98, paragraph 2 of Code of Obligations (Article 114, paragraph 2 of the New Turkish Code of Obligations)). In particular, it is likely that the compensation of moral damages will rise in the case of laboratory errors because the outcomes of such errors, such as wrong therapy or termination of employment contracts are situations that affect the spiritual world of an individual. Other typical examples of compensation claims for moral damages include erroneous determination of drug addiction, AIDS or doping.

In the cases where there is trust-based liability, it will be possible to claim compensation for all damages that occurred due to fail of reliability. In this regard, for example, if an organizer for a running race accepts a runner to the race relying on a positive health report and afterwards it is revealed that a serious health problem is in fact concealed, the organizer will be in a position to claim all damages. For instance, if the organizer is obliged to pay compensation due to death of the runner, said payment may be requested from the laboratory manager. Again, it is possible for an employer to claim the damages to be paid to an employee whose employment contract was wrongfully terminated due to an erroneous test result positive for drug addiction.

IX. The Limits of Liability for Compensation

As explained above, a harmful result is in fact the outcome of additional conducts rather than the test itself. Accordingly the question as to whether the laboratory manager shall be held liable for all damages remains as a problematic issue.

Will it be possible for a person whose employment contract was terminated due to an erroneous test to claim compensation of all damages he/she faces? In particular, if said person is a world-famous basketball player, the compensation of damages may end the economic existence of a laboratory establishment. If the sports club of said player claim compensation for their related damages because of their elimination from an important league, how would such a claim be compensated? Obviously, although the matter is a small medical test, the related liability may reach unforeseeable degrees of significance.

In our view, it is necessary to begin with the concept of "*appropriate causal connection*" acknowledged in Turkish law. The laboratory manager should be held liable only for *those damages that may be expected from expected actions* in result of an erroneous test result. That is to say, the laboratory manager shall only be held liable for the damages with which an appropriate causal connection to the erroneous test can be formed. In case other reasons intervene, their contribution too should be taken into consideration and if necessary, a reduction should be made on the amount of damage claims in order to determine the final compensation (cf. Articles 43 and 44 of Code of Obligations, Articles 52 and 53 of the New Turkish Code of Obligations).

Other than that any negative results which have an unexpected effect or which may not be expected as a result of that medical analysis in the natural course of events shall not be considered as liabilities of the laboratory manager. For instance if a physician chooses a therapy method which is unexpected even in the light of the erroneous result of the test and this causes damages, the liability of the physician shall be liable and not the laboratory manager.

Similarly in the case of an erroneous doping test, damages such as the termination of the contract of the player with the sports club, the decrease in the number of the spectators in result thereof and elimination from the championships should all be evaluated under the concept of "*appropriate causal connection*". In relation to these examples, it must also be mentioned that in the cases where the contract is not formed directly with the club, although it will not be correct to assume breach of liability or tort against the club, in the framework of trust-based liability, the compensation of the damages due to the justified trust of the club to the information provided will be under discussion. In this regard, the damages that would not have occurred if the information had not been erroneous or had been correct will form the maximum limit of the compensation. For instance it can be concluded that, if the correct information had been provided, then the contract of the player would not have been terminated and the player would have continued to play in the team and accordingly the team would have been triumphant and there would have been no decrease in the number of spectators. Similarly, other contracts such as sponsorship contracts with the player would not have been terminated increasing the further profits of the club³⁹. However, it must be emphasized at this point that it is not a simple task to prove damages resulting from decrease in the number of speculators and possible failures of the team. These may indeed be considered as speculative matters. Therefore it is necessary to determine and keep into consideration all factors that may have an effect on said damages when making judgment on such claims.

The provisions of Articles 51 and 52 of the New Turkish Code of Obligations are taken into consideration when assessing the extent of the compensation, these principles have an area of application irrespective of the causes of liability as per Article 114, paragraph 2 of the New Turkish Code of Obligations which refers to tort principles also for contractbased compensation thereby leading to evaluation of matters such as "all conditions of the concrete situation", "degree of culpability", "the consent of the sufferer, the effect thereof to the damage and the economic situation thereof" and "equity where payment of such compensation would leave the liable party in financial hardship" for assessment of damage and compensation. As a result of said assessment, the amount of compensation may be reduced but may never be increased above the amount of damage. In this regard, when the laboratory manager's complete compensation of all damages leads to his/her economic collapse or impoverishment the amount of compensation may be reduced. Again, the fault of the person who may or should have detected the erroneous information in the report is taken into consideration in the assessment of the claim of compensation.

³⁹ In the framework of reliance-based liability, it is acknowledged that loss of profit may also be claimed in addition to actual damages. See **Kırca**, pp. 207-208.

X. Conclusion

The basic services supplied by the laboratory establishments which are performing testing and reporting the results, have various legal effects.

The most important legal effect is the fact that "laboratory error" may lead to liability of the laboratory manager.

In terms of private law, liability means that the laboratory manager may have to pay compensation since the damages that result from the erroneous test and incorrect information should be compensated by the laboratory manager.

The basis of compensation and liability may be a contractual relationship established between the laboratory manager and the addressee and additionally, for persons who are not party to the contract, tort or reliance-based liability may also find an area of application.

The laboratory manager should perform the tests correctly and in accordance with the contract he/she establishes with the other party. Again, due to the profession he/she performs, the information that he/ she determines and provides creates a trust not only for the contracting party but all relevant parties who may be in contact with the information. Likewise in some cases the error in the determined information may constitute breach of personal rights. Therefore the laboratory manager, because of the incorrect information he/she provides, may be in breach of both the contractual liability and also the reliance-based liability or may commit a tort.

Irrespective of the basis of the liability, the laboratory manager will have to compensate the damages caused by the incorrect information. The important criterion with regard to the extent of the damage and compensation is the criterion of *"damage that would not have occurred had the laboratory test been correct"*. The laboratory manager shall compensate for the decrease in the assets and loss of profit due to incorrect information which normally would not have occurred. The extent of this shall

include "actual damages" as well as "loss of profits" and other economic damages, if exists.

In order to hold the laboratory manager liable, it is necessary that the information he/she determines is erroneous. Another requirement/ necessity is the culpability of the laboratory manager. Tortfeasor's fault should be considered as a common condition irrespective of the basis of the liability. The only difference between the liability bases in this regard is the fact that in a case of tort liability, the burden of proof for fault is carried by the claimant whereas in other liability forms the burden changes direction, i.e. the defendant carries the burden of proof for the lack of fault/defect.

It is obligatory that an appropriate causal connection exists between the "erroneous report" prepared by the laboratory manager and the "act causing the damage that depends on said report" as well as "damage occurred".

When determining the amount of compensation, it should be kept in mind that the report itself does not cause damage but another act must be additionally involved. Accordingly, when determining the compensation, the intervening elements should also be evaluated and the amount of compensation may be reduced accordingly when necessary.

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