

Annex 1

Frequency of errors in the different sections of the articles
(Classified in global categories or 'families' – from an analysis of 40 FS drafts)

| Category | Corpus | Abstract | Intro. | M & M | Results | Disc. |
|----------------|--------|----------|--------|-------|---------|-------|
| GRAMMAR | 75% | 75% | 74% | 70% | 77% | 75% |
| Determination | 20% | 21% | 18% | 25% | 22% | 17% |
| Tense & aspect | 14% | 16% | 19% | 10% | 13% | 13% |
| Cohesion | 12% | 10% | 13% | 8% | 13% | 13% |
| Word order | 12% | 10% | 10% | 10% | 12% | 13% |
| Prepositions | 10% | 12% | 9% | 10% | 10% | 9% |
| Modality | 4% | 3% | 3% | 1% | 3% | 6% |
| Voice | 2% | 2% | 1% | 2% | 2% | 2% |
| Misc. | 2% | 2% | 1% | 4% | 1% | 2% |
| LEXIS | 20% | 17% | 21% | 22% | 18% | 20% |
| SPELLING | 5% | 8% | 4% | 8% | 5% | 5% |

The most frequent error types in the Introduction sections
(Classified in individual categories – from an analysis of 40 FS drafts)

| Category | Nb Intro | Nb Corpus | Nb intro/ Nb corpus |
|--------------------------------------|----------|-----------|------------------------|
| Lexa - inappropriate lexical choice | 61 | 442 | 14% |
| PRE-prepositions | 34 | 286 | 12% |
| DETa-zero article | 31 | 280 | 11% |
| DE Tb-definite article | 31 | 230 | 13% |
| TPSd-present perfect, past studies | 19 | 50 | 38% |
| TPSe-present, general truths | 16 | 38 | 42% |
| ORDa -use of compounds | 16 | 120 | 13% |
| TPSb -present, commenting on results | 15 | 83 | 18% |
| COHa -coordinating conjunctions | 14 | 59 | 24% |
| ORDa - adverb position | 13 | 113 | 12% |
| Other | 195 | 1669 | 12% |
| TOTAL | 384 | 2928 | 13% |

Annex 2

Introductions by fully fledged French-speaking researchers: first drafts

Introduction 1

The proportion of elderly increasing amongst the population of industrialized countries (ref), but also among acute-care hospitalizations (ref). In France, the frequency of hospital admission of patients older than 80 has increased of 11% per year between 1970 and 1980, that is twice the mean increase of hospitalization frequency in the general population (ref). Moreover, average length of stay increases with age (ref). Thus, an increasing part of acute-care facilities is devoted to elderly care (ref).

This old hospitalized population has specific medical, psychological and social problems, that prevent or slow down the return home, and increase the length of hospitalization beyond what would be required from a pure medical view (ref). Moreover, hospital readmissions are particularly frequent among these patients (ref).

Several authors attempted to identify social and medical predictors of duration of hospitalization (ref). Since level of care at admission is subject to significant changes during hospital stay (ref), and diagnosis is not generally available at admission time, the present study will focus on social and familial variable, known at admission in an acute-care facility, which could allow early identification of patients at high-risk of prolonged or complicated hospitalization.

Introduction 2

Membrane lipids of viruses, prokaryotes and eucaryotes have been considered as both targets of radiation-induced damage as well as potential radioprotective constituents (ref). Up until the last years, the theory was that the physical state of the membrane during irradiation plays an important role in determining levels of injury and repair following exposure (ref). However, recently, some controversial results are obtained for (ref) and against (ref) a correlation between fatty acid composition, fluidity and radiation sensitivity.

On the other hand, there are considerable evidences that lipid peroxidation may have an important role in radiation-induced cell killing by leading structural and functional damages to membrane proteins or fatty acyl chains of phospholipids. But once more, the lipid peroxidation is not a determining factor in radiation-induced cell death (ref).

Potentially harmful reactive oxygen species such as hydroxyl radicals, singlet oxygen and superoxide anions are formed by water hydrolysis upon reactive exposure (ref). These activated oxygen species can induce destructive cellular events such as enzyme inactivation, DNA strand cleavage and membrane lipid peroxidation. Hydroxyl radicals are also produced during the action of hydrogen peroxide cells by a Fenton reaction initiated by iron (Fe^{++} and Fe^{+++}) present in the medium, free or in physiological state (ref). Thus, a study of the effect of H_2O_2 on cells offers the possibility to observe the mechanism of OH^\cdot effect.

Introduction 3

In the yeast *Saccharomyces cerevisiae* the purine-cytosine permease (PCP) mediates the cotransport through the plasma membrane of proton and purine bases (adenine, hypoxanthine and guanine) or a pyrimidine base (cytosine) (ref). The utilization of a transmembrane electrochemical potential difference in proton leads to accumulation of bases in the cytoplasm (ref). In an attempt to study this secondary active transport mechanism a pH dependence kinetic study of bases uptake into whole cells of a wild type strain of *S. cerevisiae* showed that the base transport activity parameters (K_m and V_m) were dependent on the concentration of the cosubstrate H^+ (ref). In addition the apparent affinity for base accumulation increases in the presence of higher concentration of proton. Whether the external proton concentration has an effect on the binding of the nucleobase onto the permease, first step of the translocation process, remains to be established.

Annex 3

Introductions after spellchecking with Word 7 integrated checker

Words corrected are in italics

Introduction 1

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Several authors attempted to identify social and medical predictors of duration of hospitalization (ref). Since level of care at admission is subject to significant changes during hospital stay (ref), and diagnosis is not generally available at admission time, the present study will focus on social and familial variable, known at admission in an acute-care facility, which could allow early identification of patients at high-risk of prolonged or complicated hospitalization.

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On the other hand, there are considerable evidences that lipid peroxidation may have an important role in radiation-induced cell killing by leading structural and functional damages to membrane proteins or fatty acyl chains of phospholipids. But once more, the lipid peroxidation is not a determining factor in radiation-induced cell death (ref).

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Annex 4

Conventions for correcting manuscripts : (Edge, 1989 modified)

| | |
|------|-------------------------|
| A | Article |
| G | Grammar |
| P | Punctuation |
| S | Spelling |
| ^ | Something missing here |
| ∠ | Start new paragraph |
| Str | Structure |
| T | Tense |
| Tool | Toolword/Tool structure |
| W | Wrong word |
| WO | Word order |

Annex 5

Introduction 2 after applying error highlighting scheme in annex 4

Membrane lipids of viruses, prokaryotes and eukaryotes have been considered as both targets of radiation-induced damage **and** potential radioprotective constituents (). **Until now**, the theory was that the physical state of the membrane during irradiation plays an important role in determining levels of injury and repair following exposure (). However, recently, some controversial results **have been** obtained for (3-5) and against (6-8) a correlation between fatty acid composition, fluidity and radiation sensitivity.

On the other hand, there **is** considerable **evidence** that lipid peroxidation may have an important role in radiation-induced cell **death** by **inducing** structural and functional **damage** to membrane proteins or fatty acyl chains of phospholipids. **However**, lipid peroxidation is not a determining factor in radiation-induced cell death (6).

Potentially harmful reactive oxygen species such as hydroxyl radicals, singlet oxygen and superoxide anions are formed by water hydrolysis upon reactive exposure (9, 10). These activated oxygen species can induce destructive cellular events such as enzyme inactivation, DNA **strand** cleavage and membrane lipid peroxidation. Hydroxyl radicals are also produced during the action of hydrogen peroxide cells by a Fenton reaction initiated by iron (Fe^{++} and Fe^{+++}) present in the medium, free or in physiological state (11-14). Thus, a study of the effect of H_2O_2 on cells offers the possibility to observe the mechanism of **the** OH^- effect.

Annex 6 Linkers

Membrane lipids of viruses, prokaryotes and eukaryotes have been considered as both targets of radiation-induced damage and potential radioprotective constituents (). 1, the theory was that the physical state of the membrane during irradiation plays an important role in determining levels of injury and repair following exposure (). 2, recently, some controversial results have been obtained for (3-5) and against (6-8) a correlation between fatty acid composition, fluidity and radiation sensitivity.

3, there is considerable evidence that lipid peroxidation may have an important role in radiation-induced cell death by inducing structural and functional damage to membrane proteins or fatty acyl chains of phospholipids. 4, lipid peroxidation is not a determining factor in radiation-induced cell death (6).

Potentially harmful reactive oxygen species 5 hydroxyl radicals, singlet oxygen and superoxide anions are formed by water hydrolysis upon reactive exposure (9, 10). These activated oxygen species can induce destructive cellular events 6 enzyme inactivation, DNA strand cleavage and membrane lipid peroxidation. Hydroxyl radicals are 7 produced during the action of hydrogen peroxide cells by a Fenton reaction initiated by iron (Fe^{++} and Fe^{+++}) present in the medium, free or in physiological state (11-14). 8, a study of the effect of H_2O_2 on cells offers the possibility to observe the mechanism of the OH^- effect.

Annex 7 Jumbling

1. Membrane lipids of viruses, prokaryotes and eukaryotes have been considered as both targets of radiation-induced damage and potential radioprotective constituents (ref).

Potentially harmful reactive oxygen species such as hydroxyl radicals, singlet oxygen and superoxide anions are formed by water hydrolysis upon reactive exposure (ref).

2. However, recently, some controversial results have been obtained for (ref) and against (ref) a correlation between fatty acid composition, fluidity and radiation sensitivity.
3. Thus, a study of the effect of H_2O_2 on cells offers the possibility to observe the mechanism of the OH^- effect.
4. However, lipid peroxidation is not a determining factor in radiation-induced cell death (ref).
5. These activated oxygen species can induce destructive cellular events such as enzyme inactivation, DNA strand cleavage and membrane lipid peroxidation.
6. Hydroxyl radicals are also produced during the action of hydrogen peroxide cells by a Fenton reaction initiated by iron (Fe^{++} and Fe^{+++}) present in the medium, free or in physiological state (ref).
7. On the other hand, there is considerable evidence that lipid peroxidation may have an important role in radiation-induced cell death by inducing structural and functional damage to membrane proteins or fatty acyl chains of phospholipids.
8. Until now, the theory was that the physical state of the membrane during irradiation plays an important role in determining levels of injury and repair following exposure (ref).

Correct order is :.....

Annex 8

Published version of introduction n° 2

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The Action of Free Radicals on *Deinococcus radiodurans* Carotenoids

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The possible role of carotenoids as free radical scavengers has not been completely elucidated. To gain further insight into the quenching of OH[•] radicals by carotenoids, we used a feasible bacterial model, *Deinococcus radiodurans*, a red pigmented bacterium. We compared the action of H₂O₂ which produces *in vivo* OH[•] radicals by a Fenton-type reaction on the parental and two mutant strains, i.e., a red pigmented and a colorless one. While the red pigmented bacteria were resistant to H₂O₂ action, the colorless strain was significantly more sensitive and its sensitivity was dose-dependent. In the red pigmented strains, H₂O₂ induced a significant decrease in one carotenoid (X₈), which could be responsible for the antioxidant activity. © 1989 Academic Press, Inc.

There is currently much interest in the role of free radicals in human diseases. Potentially harmful reactive oxygen species such as superoxide anions and hydrogen peroxide are produced in many biological systems or by water radiolysis (1-3). These activated oxygen species may induce destructive cellular events such as enzyme inactivation, DNA-strand cleavage, and membrane lipid peroxidation. Hydroxyl radicals are also produced by the action of hydrogen peroxide on cells by a Fenton reaction started by traces of transition metal ions, principally iron, which are present in the medium in the free or physiological state (4-8).

The normal cell defense mechanisms against reactive oxygen species are enzymes such as catalase, superoxide dismutase, or glutathione peroxidase, and a variety of biological antioxidants, such as vitamins A (and related compounds) and E (3).

Carotenoids are able to quench singlet oxygen (9) and oxidative free radicals (10). They may also protect against photooxidative damage (11) in bacterial systems and in some kinds of skin photosensitivity in animals or humans.

Carotenoids are also of particular interest because a number of red pigmented bacteria are known to be extremely radioresistant, notably *Deinococcus radiodurans* (12) and *Arthrobacter radiotolerans* (13). However, different investigations concerning the possible role of carotenoids in radiation protection have so far yielded inconsistent results (14).

The present study was undertaken to gain further insight into the quenching of hydroxyl radicals by carotenoids. In this respect, a feasible bacterial model, *D. radiodurans* (strain R₁ Anderson), which is a red pigmented radioresistant bacterium (15) possessing catalase activity (16) and nonperoxidizing lipids (only straight chain saturated and monounsaturated fatty acids) (17, 18), was used.

We therefore analyzed the behavior of the parental bacterium toward the H₂O₂ effect and that of the two mutant strains isolated, i.e., a more radiosensitive, red pigmented one and a colorless one which was as radioresistant as the parental strain (19).

MATERIALS AND METHODS

Bacteria

The R₁ Anderson strain of *D. radiodurans* was used as parental strain. Mutants were isolated from the

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